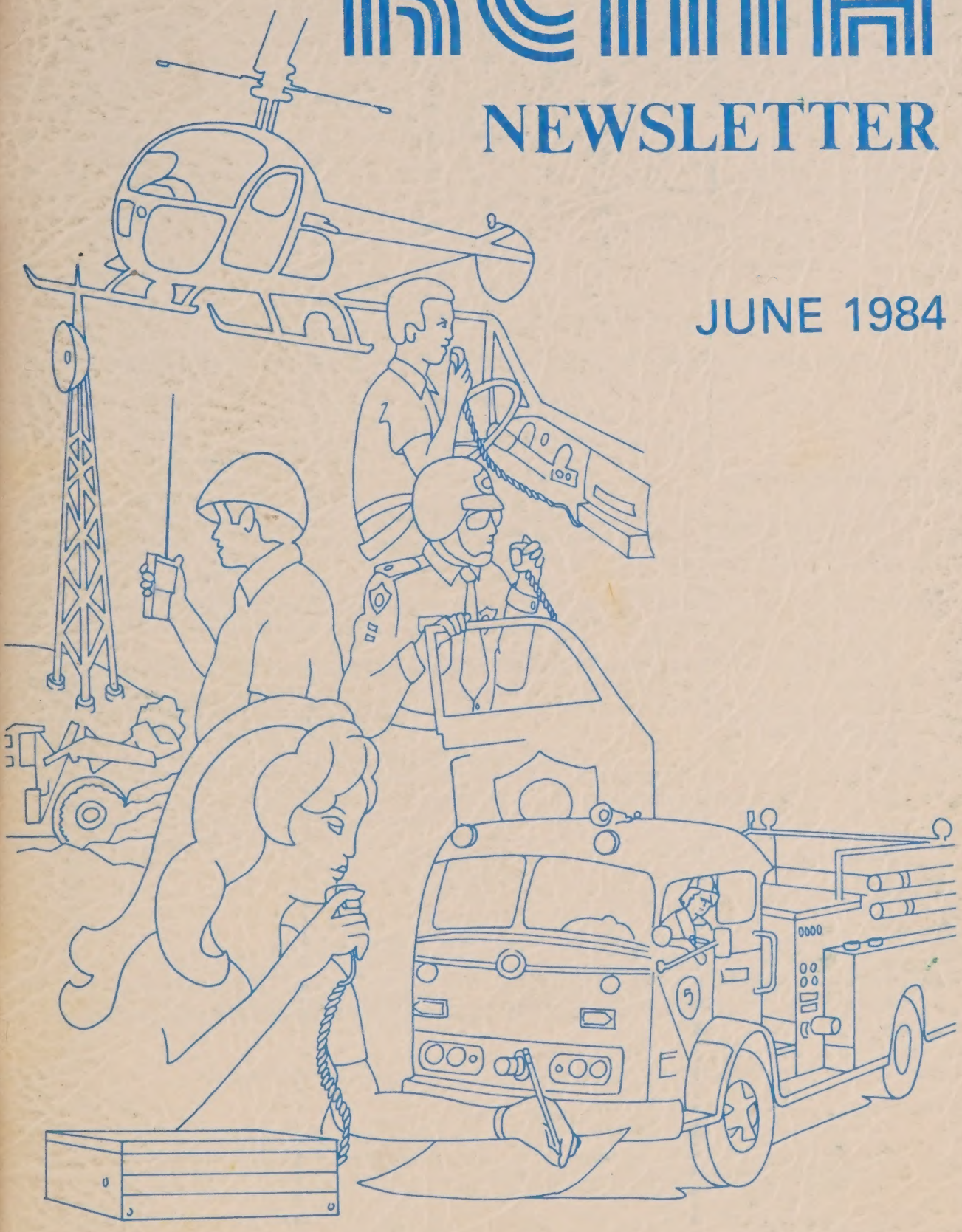
RCMA

NEWSLETTER

JUNE 1984



FIRST NATIONAL AND INTERNATIONAL ORGANIZATION
OF MONITOR RADIO LISTENERS

RCMA BOARD OF DIRECTORS

SECRETARY

Bill Ell (CA-LA-185)
2831 Hermanos St.
Pasadena, CA 91107

TREASURER

Mike Lussier (ID-001)
P.O. Box 3962
Santa Fe Springs, CA 90670-1962

RCMA NEWSLETTER

GENERAL MANAGER
Editor • Business Affairs • Advertising

Carol E. Ruth (CA-OR-100)
P.O. Box 542
Silverado, CA 92676

ASSISTANT EDITOR

Ginny Slick (MD-012)
1 West Potomac
Williamsport, MD 21795

RCMA REPRESENTATIVES TO THE ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

Jerry Short (CA-OR-002)

FOR YOUR INFORMATION:

1. All club business, unless otherwise noted, must be addressed to R.C.M.A. General Manager, P.O. Box 542, Silverado, CA 92676. This includes matters that relate to renewals, changes of address, newsletter delivery problems, joining the club, etc.

2. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropriate, send input to RCMA, 1 West Potomac, Williamsport, MD 21795.

3. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA General Manager, P.O. Box 542, Silverado, CA 92676.

4. Please include your RCMA membership number with all correspondence to newsletter editors or club headquarters.

5. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

6. Please write on only one side of the paper.

7. Please don't combine in one letter several items that should go to different addresses.

8. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

9. Your RCMA membership number and expiration date appear on your newsletter mailing label.

10. You may join or renew your membership for ONLY one year at a time.

11. RCMA accepts paid advertising. For information on advertising rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P.O. Box 342, Silverado, CA 92676.

RCMA NEWSLETTER
Issue 100 June 1984
(c) Copyright. All rights reserved
RCMA, P.O. Box 4563, Anaheim, CA 92803

TABLE OF CONTENTS

AIRCRAFT..... 14
ANARC NEWS..... 14
BEGINNERS CORNER..... 16
BELOW 30 MHz..... Ø
BUSINESS, ETC..... 16
CALENDAR..... 2
CANADA..... 18
COMMUNICATIONS PROFILE..... 22
CONTACT/INFO WANTED..... 27
FCC TOPICS..... 28
FEDERAL GOVERNMENT/MILITARY..... 41
INTERNATIONAL..... 46
LOW BAND SKIP..... Ø
MARKETPLACE..... 50
MONITORING AND THE LAW..... Ø
NEW MEMBERS LIST..... 105
PHOTO DEPARTMENT..... 51
PUBLIC SAFETY:
CALIFORNIA..... 85
GREAT LAKES..... 73
NORTH CENTRAL..... Ø
NORTH EAST..... 69
SOUTH CENTRAL..... 64
SOUTH EAST..... 54
WEST..... 81
RAILROADS..... 91
SPACE COMMUNICATIONS..... 94
SPECIAL FEATURE..... 7
TECHNICAL TOPICS..... 97
THOUGHT WAVES..... 5
VHF MARINE..... 101

ATTENTION -

TO ALL RCMA MEMBERS AND PROSPECTIVE MEMBERS -

PLEASE ADDRESS ALL CORRESPONDENCE (INQUIRIES ABOUT MEMBERSHIP, RENEWALS, ADDRESS CHANGES, DELIVERY OR RENEWAL PROBLEMS) TO:

CAROL RUTH
RCMA GENERAL MANAGER
P.O. BOX 542
SILVERADO, CA 92676

CORRESPONDENCE SENT TO RCMA'S ANAHEIM POST OFFICE BOX WILL STILL BE ANSWERED, BUT THERE WILL BE A 4 - 6 WEEK DELAY.

The RCMA Newsletter is published monthly by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico–$18.50; Europe–$20.00, South Pacific and Asia–$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted © Reproduction of any material in this newsletter is prohibited without prior written consent.

RCMA

...Calendar...

Send notices of upcoming events for the Calendar section to:
John Clark, RCMA, P.O. Box 4653, Anaheim, CA 92803.
Please send notices well in advance of the Newsletter deadline.

RCMA Greater LA Area Chapter

Contact : Eric Christensen (CA-LA-045)
P.O. Box 3962 Santa Fe Springs, CA 90670-1962

Meeting Location: Mercury Savings & Loan, Valley View and Lincoln
Buena Park, CA, 2nd floor(elevator in rear)
Unless otherwise noted meetings are on the 4th
Friday of the month and start at 8:00 PM

May 25 FRIDAY Tour Los Angeles County Sheriff Radio Center S.R.C.
1277 N Eastern Avenue, East Los Angeles. 8:00 P.M.

The center is across the street from Sheriff Rd, which leads to LASO Academy. The access road to the center is marked with a sign 1277 N. Eastern (on the west side of Eastern). Drive up the road to gate. Talkin on the Gordo Channel 144.33 MHz. Map reference Thomas Broths page 45 sector d-3.

June 22 FRIDAY Meeting at Mercury Savings and Loan, Valley View and Lincoln, Buena Park, Ca 8:00PM. 2nd Floor. Elevator in back. (This meeting may be relocated to The Orange Coast College Computer Center where there are 40 demonstration terminals.)

Discussion and demonstration of computerized frequency lists. Problems with creation, updating, correcting and selection by various criteria will be covered.

July 27 FRIDAY Los Angeles Summer Olympic Games Special Interest meeting
8:00 PM Mercury Savings & Loan

This meeting will be dedicated to the Los Angeles Summer Olympic Games, which will be in effect from July 28 until August 12. Bring all of your frequency lists for a last minute update on the Eve of the Olympic Games. All out of area RCMA members who plan on visiting the games should check in here for latest updates.

August 24 FRIDAY Tour of LAPD Communications Division - ECCCS 8:00 PM
4th Floor Basement, City Hall East, 200 N. Main Street at Temple Street, Los Angeles.

RCMA has been given a very special invitation to tour LAPD's new and fantastic Communications Center which they call ECCCS. Our tour is 2 weeks after the ending of the Olympic Games and will provide us the opportunity to see the "Nerve Center" of the games and the LAPD. This is the chance to tour one of the newest and most sophisticated police communications centers in the nation.

September 28 FRIDAY Special Guest Speaker Mr. Gene Hughes, Editor Police Call
8:00 PM Mercury Savings & Loan

Mr. Gene Hughes (CA-LA-006) will be the kick off speaker for the for the start of The Radio Communications Monitoring Association's 10th year.

October 26 FRIDAY Open meeting date

November 23 FRIDAY Open meeting date (day after Thanksgiving)

December 28 FRIDAY -- No meeting

Events for October and November have yet to be scheduled. Any one having an idea for a meeting or tour, please contact Eric.

RCMA Chicago Chapter

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Meetings: NANCINI'S Resturant 5555 St Charles Road, Berkeley, Il
two blocks east of St Charles Road exit from Eisenhouer
Expressway Extention I-290 (phone 312 544 7277)

Saturday	June	9, 1984	1:00 PM
Saturday	August	4, 1984	1:00 PM
Sunday	August	19, 1984	Picnic/Field Exercise *
Saturday	September	22, 1984	1:00 PM
Saturday	November	10, 1984	1:00 PM

*Write for time, map, and details of this fun day

Visitors are welcome but please confirm the date in advance.

A SASE on file assures notification of tours and other item which may be scheduled on short notice.

RCMA Philadelphia Chapter

Contact: Gerald M. Schoaf, Floyd Schoenberg, C. Willard Load
PA-036 PA-076 PA-164
P.O. Box 213, Upper Derby, PA 19082 (215) 356-1982

Meeting the first Monday of the month, 7:30 PM at

Saint James Church Next to "The Grange"
Corner of Myrtle Ave & Warwick Road
Haverford, PA 19083

Talk In On: CB Channel 9 GMRS 467/462.675 Hams 147.66/.06

RCMA for D.C., MD, VA, DE

Contact: Capitol Hill Monitors % Alan Henney (MD 069)
6912 Prince Georges Ave, Takoma Park, MD 20912

RCMA Connecticut Chapter

Contact Bill Moore CT 038 203-223-0840
950 Farmington Ave, New Britain, CT 06051

Calendar continued

RCMA Minneapolis-St. Paul Area Chapter

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc) non members are welcome to attend.

All Ohio Scanner Club

David B. Marshall OH 146 President
50 Villa Road, Springfield, OH 45503

Austin Area Radio Listeners Meeting

Meeting every 3rd Tuesday 7 PM Austin Public Library 4th floor room B. For more information, contact Richard Quintanilla TX 043 Austin Radio Club, P.O. box 5053, Austin Tx 78763

Southern New England Scanners Club

Contact Robert Murphy SNEC President 401-353-0208
P.O. Box 1591, Pawtucket, RI 02862

NEED BACK ISSUES OF THE RCMA NEWSLETTER?

Lots (Months/Year)	No. of Issues	Price
Sept 75 - June/July 76 (No Oct or Nov published)	7	$2.00
August - Dec 76 (No Oct published)	4	$3.00
Jan - June 77	6	$4.00
July - Dec 77	6	$4.00
Jan - June 78	6	$5.00
July - Dec 78	6	$5.00
Jan - June 79	6	$6.00
July - Dec 79	6	$6.00

1980-83 issues are available at $1.50 per copy.

Order Total	Include This Amount of Postage
$ 1.50 - $ 5	$1
$ 5.50 - $10	$2
$10.50 - $15	$3
$15.50 - $25	$4
$25.50 - $35	$5
Over $35	$6

Send your request & check/ M.O. (payable to RCMA) to Secretary Bill Ell, 2831 Hermanos St., Pasadena, CA 91107

THOUGHT waves

Ginny Slick, RCMA Assistant Editor, 1 West Potomic, Williamsport, MD 21795

I'm going to take only enough space to thank those who responded to our request for senior members of RCMA to write down their thoughts on this occasion of our 100th issue. I urge all of you to look at the centerfold of this newsletter to see how far we've come in the FIRST 100 issues.

I use the term WE advisedly, because each of you who has written a letter to the editor, send a list of frequencies to a column, or answered a Contact ad, has brought about this progress.

One thing hasn't changed, however, and my hope is that it never will. Your newsletter is of the members and by the members. We may be slightly slow in some areas and we may not be as modern as the mags you buy on the news stand, but if you take the time to make yourself know to us, we'll make ourselves known to you.

We need you and your contributions in order to survive. Your sharing has made this issue possible. I know I speak for every person involved in the newsletter when I say how grateful we are for your support!

Following our regular 'letters to the editor' in Your Thoughts, below, is a Special Feature dedicated to the 100th RCMA NEWSLETTER.

YOUR THOUGHTS

1 West Potomac, Williamsport, MD 21795

To the Editor:

Recently, I had the experience of looking through numerous issues of past RCMA newsletters, trying to find an address of anyone living in Las Vegas, Nevada. Finally, after about thirty minutes of searching, I found the one and only. How many others have had this problem?

Is there a possibility that this fine organization could put together a yearly membership list, even at a nominal cost. My idea would be to put the list into alphabetical order by state, then, by name. Similar to that of the "New Members List" already being published. I am sure that this type of directory would be helpful to the members.

Please, feel free to comment:

Sincerely,
J. Pat McDonald
J. Patrick Mc Donald, CASD054
P.O. Box 393
Vista, California 92083

To the Editor:

All of us have come upon lists of frequencies which make us wonder what brand of LSD its author is on. For those of us with digital scanners, a boo-boo is no problem. But for someone who has to dig down for a five dollar crystal, a few mistakes don't seem minor at all.

I would like to request that all contributors to publications which publish lists of frequencies, ours included, make up these lists from their own scanning experience.

No book is perfect. Gene Hughes' Police Call is very authoritative; but if you read it carefully, you'll find (and he'll tell you) that it contains 'coded' material. In other words, there are intentional errors to catch anyone who would copy it.

So much of the work done in the Newsletter borders on brilliant. It's a shame that brilliance has to be marred by a few who are either careless or just wish to impress us with how many frequencies they can put on a sheet of paper.

John Dorsey (VA-078)

To the Editor:

After reading Mr. Schonefed's article in the April issue, I must make a comment: I use all Bearcat scanners, four in all. My BC101 had to go in for repairs some time ago because it would not accept the programmed frequencies. As it was still under warranty it was done free of charge, but when I got it back, it still had the same problem; thus I had to pack it up and return it at my expense. It now has to go back in, and they will advise me as to the cost.

My BC300 was just out of warranty when it had to go back due to memory loss. It cost me nine dollars to insure and mail it, and then repairs cost me over fourty-seven dollars. I believe that next time I'll just mail a check for thirty-five dollars along with my scanner. After all, every dollar counts.

I will say that they are prompt about returns- less than two weeks.

Elli (FL-169)

To the Editor:

First, I would like to say that I enjoy RCMA and find it most interesting and informative.

I must agree with Vandegrift and Shinn, in that 10-Codes do take up a great deal of space in the newsletter. I think that the limited space sould be better taken up by tips on scanning, product reports, and, of course, more frequencies.

Another point that Jeff Shinn brought up, and one that I have been very concerned with, is the extremely long time between submission of an item to "Marketplace" and the time it appears in the Newsletter. Why does it take anywhere from 3 to 6 months to appear?

I might add that a close friend has been operating a Regency MX5000 for about two months now, and it performs great. It is particularly sensitive in the 220-400 Mhz range! Keep up the good work, and please let me know why the delay in the marketplace.

Bruce Stewart (AZ-040)

EDITORS NEEDED

AIRCRAFT COLUMN
BELOW 30 MHz COLUMN
PUBLIC SAFETY - NORTH CENTRAL (Iowa, Kansas, Missouri, Nebraska, N. Dakota, S. Dakota, and Minnesota)
PUBLIC SAFETY - GREAT LAKES (Illinois, Indiana, Wisconsin, Ohio, Michigan, and Kentucky)

If you are interested, please write to
RCMA Assistant Editor Ginny Slick,
1 West Potomac, Williamsport, MD 21795

Special RCMA Feature

COMMEMORATES 100th ISSUE

As Editor of RCMA, I'd like to join Ginny Slick in thanking the club's "old timers" whose contributions to this special issue appear below. It's an appropriate time too to express appreciation to all the editors, whose hard work and commitment play an integral part in making the Radio Communications Monitoring Association what it is. And 'what it is' is best told in the words of those whose letters follow.

Carol E. Ruth

LOOKING BACK: NOTES FROM A CONVERSATION WITH JERRY SHORT (CA-OR-002)

By Bryan Hunnell (CA-OR-097)

The following reflections on RCMA's history are those of Jerry Short, a founding father of our club and the man many of us refer to as "Mister RCMA."

...Bob Leef's scanner store was the meeting place of the group now called the "founding fathers." Our original idea was to set up a scanner convention, not a club with ongoing meetings.

The enormity of the task, however, overwhelmed the troops, and the original idea changed. For a year or so (1975), the group met periodically--always with one thought in common: that there must be others who wanted to share radio information too.

The Time Was Right

Gene Hughes' POLICE CALL came out and the infamous crystal scanner was on the market. What was needed was a scanner club. Well, the Savings & Loan down the street from Bob's store had a room for use by clubs and we met there for a while. By the time we moved to a branch library , things were starting to roll. The need for a club name now became apparent. and the Radio Communications Monitoring Association was born.

A small notice to attract outsiders was placed in Bob's Communications Center newsletter. At last people started to attend, and the focus on information to share set the theme of many meetings to follow.

Most notable of these growing gatherings was the night that Bearcat scheduled an appearance to present the club with a brand new BC-210. The number of members attending was between 110 and 120! A non-member who also showed up was the librarian in charge of the room we were using; she reminded us that occupany was limited to 50 persons! That's when - and why - the group moved to its present location in Buena Park.

One clearly established fact in our club history is the publication date of the first RCMA Newsletter: September, 1975. The club has published an issue every month since 1977. Everyone can certainly agree that this is a pretty impressive record...

The occasion of the newsletter's 100th issue is a good time to remember and recognize the help of all those who have kept our club together during the past nine years. The list is a long one, but high on it is Jerry Short. I know others will second my thanks to him for keeping the "chin up" during the tough times when the work involved seemed almost too much.

Thanks to all of you from Jerry and myself. We look forward to a bright and solid future for RCMA.

Special Feature continued

Greetings from Oswego:

The 100th Anniversary issue of the RCMA Newsletter approaches, so it's only proper that I get a letter off to thank you for the wonderful services rendered in behalf of all radio enthusiasts. I'm really looking forward to reading this special issue, as are a lot of others.

My involvement in RCMA is similar to yours- goes back quite a few years. I started off with crystal radios and BC-101s. (The 250 was only a dream at the time.) I started writing for info and eventually got to meet people with the same interests. The first major RCMA gathering of radio enthusiasts outside of California was held here back on June 2, 1979. Now we have regular meetings under the banner of the "Chicago Chapter". Tours and field days augment the meetings. Some of our RCMA members up in the Milwaukee area have occasional gatherings, a nice idea for those WI members not able to make the trek down to 'Nancini's'.

After the 100th issue has passed, I'll still look forward to every future Newsletter. I have all the issues going back to 'Day 1' and urge those interested to purchase the back issues. They trace the growth of the scanning hobby, plus help the enthusiast to catch up on a lot of back history for all types of radio systems.

RCMA will posper as long as the Newsletter prospers. Again I urge members to be active in the hobby. Join a chapter or a group. Organize a tour or field day. Make those contributions to the dedicated people who serve as our various column editors. Encourage other enthusiasts to join RCMA. Remember, RCMA is more than just a Newsletter; it's people from all walks of life, races, religions, etc., that have a common hobby, namely

Happy Monitoring!
John Arendt

Ginny Slick
1 West Potomac
Williamsport, MD 21795

1-22-84

In answer to your request for thoughts on the occasion of RCMA's 100th issue of the newsletter, following is some information which may be of interest.

I bought a CB store in 1972. There were two or three scanners at the end of the counter but I soon found more interest in them than Citizens Band. As more scanner models and crystals were stocked in the store, an assortment of aficionados began to inhabit the place and share my interest. In the Spring of 1975 I suggested to six of them that we form an organization. The hobby was about eight years old by then and there was no known means for people with similar interests to get together and exchange information. For several organizational meetings during the summer of 1975 we labored over the name. It was really a struggle to get all our thoughts together but it finally happened when the "Radio Communications Monitoring Association" said it all for all of us! I think you have a copy of Newsletter #1 but in case you don't, one is enclosed.

After our first public meeting on August 18, 1975 things really took off. In the August 1977 issue of the newsletter I forecast that there would be tremendous growth from our 175 members, and that there would be imitators. Everyone is aware of the growth; a few know that we were approached several years ago with a proposition to go commercial. The proposal was turned down in order to maintain the independent integrity of the organization. Not long afterward SCAN was started.

Special Feature continued

In the February 1978 issue of RCMA Newsletter there is an interesting history of scanner milestones by "Mr. Wizard" (???). Looking at old store literature is like walking through a cemetery. Brands having died are numerous: Tennelec, Craig, Robyn, Teaberry, Aerotron, Unimetrics, Lafayette, Johnson, Browning, Plectron, Surveyor, Pace, Hy-Scan, Gladding, Sonar, etc. etc. (How many more can you name?).

In one of our earliest issues a survey was conducted of members wants and dreams regarding desireable features for future scanner models. Copies of the issue showing survey results were sent to all manufacturers. It is no accident that a surprising number of those features exist in current models now. It may be time to do this again. One desireable feature that comes to my mind immediately is that in spite of increasingly sophisticated "upper end" synthesized scanner models, none include programmable tone (CTCSS) yet, even though it is readily available in some two-way radio models one of which is a company also producing scanners! If we don't continue to give manufacturers a direction to go, they can become too interested in pumping big numbers of bland models off the shipping docks.

I hope that the excellent work being done by the newsletter crew will continue. There is no doubt that most of our success is due to them. Good luck on the next 100.

Bob

Bob Leef CA-OR-33

P.S. In case you wonder, I traded in my super low number to get 33 which matches my unit number in REACT, to which I have belonged for 19 years.

It hardly seems possible that almost ten years has passed since the founding of our club. Following are some of my recollections about how it all started and proceeded.

At the time there were publications and radio clubs for shortwave listeners, for medium wave DXers, amateur radio operators, CBers, and all the other radio hobbies except monitor radio listening. Information on the hobby was very hard to find and each person was mostly on his own with no simple means of locating others interested in this same hobby, at least this was my experience. Over the years, I had belonged to a variety of radio clubs and I knew what a great benefit such clubs were to active hobbyists by providing a means of contact and information exchange. Monitor radio listening had reached a point where it needed a club. I was eager to become involved.

The Worldwide TV-FM DX Association (WTFDA) was the only club that came close to "our kind" of frequencies. Their focus was primarily on reporting and exchanging information on long-distance reception of TV signals, signals in the FM band of 88-108 MHz, and signals in the 30-50 MHz public service band. I did belong to the club and wrote a letter trying to promote the expansion of their club to include monitor radio listening and that I would be willing to help. They printed only part of my letter, neglected to include my address, and apparently decided not to consider it. Consequently, nothing developed. I mention this only because had they taken me up on it, RCMA might never have existed.

Let me take a little side trip for a moment, then I'll return to the RCMA. I began the hobby at age 14 in 1954. Equipment at that time was a little primitive compared to today's synthesized scanners with digital readouts -- and so were some of the things I used to listen to. For instance, the Riverside Police and Fire Department and the Dog Catcher were all on the same frequency and sometimes the Dog Catcher would help the police! One time another local department police dispatcher clearly suggested to an officer to continue following a certain person because sooner or later he'd be able to cite him for something. The police probably still do this but I no longer hear it on the radio. For several years my equipment consisted of a couple of Hallicrafters VHF tuneables and some converted military surplus (including a BC-639 for the VHF aircraft band) and a shortwave receiver (Hallicrafters S-76). There were police and fire calls to be heard in the 1.7 and 2.5 Megacycle bands (Yes! Megacycles -- and that's the way it should have stayed). In fact, in 1961-62, when I was stationed at Hill AFB in northern Utah,

in the evenings I could regularly tune in the Riverside County Sheriff (my home county in southern California) some 700 miles away which I really enjoyed. Later I used a two-band Regency tuneable I had hopped up to the limit and added a super dial with about 12 feet of bandspread! It did not read out in frequency, just numbers, but I could return fairly reliably to any given frequency I had logged. Multichannel, crystal-controlled monitor receivers appeared and then crystal scanners and, of course, followed by synthesized scanners which were beyond my wildest dreams back in the days of the tuneable tube sets. And, I'll bet I had more fun with my old radios back then than most people do now. It was a real undertaking to make all your own antennas and to receive things and to figure out what they were. I had many, many entertaining hours.

About the time I was using my hopped-up Regency (DR-200, I believe) out came the first issue of Gene Hughes' "Police Call" for southern California (wish I still had that edition!). This was the first publication I was aware of intended for two-way communications listeners above 30 MHz. This publication provided great assistance pertaining to local frequencies and systems. Before that, I would go around to police and sheriff radio shops and try to talk them out of frequency and system info. I sometimes got it and sometimes I didn't -- it was a challenge and it was always exciting. I learned very quickly that one would get nowhere inquiring about frequencies at the front desk and that those cops that man those front desks must take rude classes or all have really bad hemorrhoids. There was an exception, however, when I was in high school in about 1956 when I must have looked less threatening to the police establishment, I did a report for some class on two-way radio communications and took my camera all over and was taken quite seriously by many people and gained access to a lot of interesting places and photographed them. The Riverside County Sheriff even personally posed for me at the main dispatching console -- still have the photo. Coming back again to the late 60's and early 70's -- I would inquire at the local electronics store where they sold a few monitor radios if they knew of any other customers who were as serious about the hobby as I was and if so, could I be put in contact with them. By way of this store I did meet a very nice older lady who monitored nothing but the Riverside S.O. She had her radio on all day long and every single day. She had a speaker in just about every room in the house including the bathroom! She even knew the officers' voices and had everything figured out. We had many nice visits. That was the only person I met and then one day somewhere, somehow I heard of a store in Anaheim (next county over from me) that sold scanners and had lots of crystals in stock. I went there and was delighted to find so many scanners, antennas, etc. I knew I was onto something good.

Either on that visit or one shortly thereafter, I asked the owner (Bob Leef, later to become a founding father of RCMA) if he knew of anyone in my area (45 minutes away to the east, sort of) who might want to seriously talk monitor listening. This led, to the best of my recollection, to my being put in contact with George Pond (Fire Captain, later to become a founding father). He and I both happened to be taking a night school course on the same night on the same part of the campus of a local college. We decided to meet one evening before class. We did and got along fine. George told me of another listener who might want to get together (Danny McLean, later to become a founding father). As I recall this led to a meeting after hours at Bob Leef's store and in addition to the aforementioned, included Jerry Short, Chuck Smith, and Jim Barrow, all of whom became founding fathers. This meeting, even if I do say so myself, brought together to one place people with an impressive collective background, not just in hobby radio but in business and electronics, too. I would estimate our average age at the time to be about 33. We were a responsible group of adults. We all struck it off pretty well and shared the enthusiasm about organizing monitor radio listeners. I seemed to be a good talker so before I knew it I was the "Chairman" and the one who sent out notices, meeting agendas, etc.

Our first objective was to organize a monitor listeners convention with manufacturers represented and use that as a grand starting point for a club. After a few meetings (still at Bob's store) we decided that it would be a big job and might not achieve what we wanted. We then decided that we would start a club and leave any conventions for later. Then, we had to figure out a name. We talked and argued and went round and round for a long time, several meetings, I believe. I'm not 100% sure but I think I came up with "Radio Communications Monitoring Association." If it wasn't my idea, I did get behind it and stuck with it until everyone else gave up. (Being an only child makes me hard to deal with sometimes -- I always want my own way!) I had several objectives in mind for a name: 1) The words should go together nicely and "sound right", 2) The initials for it should have a nice flow, 3) The name should reflect to some extent what the club is all about and 4) It should be mature and respectable.

We talked at length about membership. What geographical area would it cover? Would it be open? Would prospective members have to be screened? Would we have

essentially a private club with restrictive membership qualifications? All of us were concerned about the "bad guys" getting system and frequency info on some of the sensitive systems. In fact, the restrictive Federal Frequency Policy of the RCMA was born out of concern of all the founding fathers. (Today, I still believe that sensitive frequencies from the local level to the federal and military level should not be published and it is our duty to guard them. It is the only responsible thing to do.)

Anyway, we did decide to open our doors to most everyone who came along but we watched for "bad guys." We had connections to run police checks on people and we did it from time to time. Not only were we concerned about the bad guys but we were alert to the possibility of being infiltrated by representatives of the Justice Department, etc. in case they just wanted to see what we really did know about their radio systems and what we were doing with that information. Things got a little paranoid once in awhile especially when someone new would come on the scene who was well mannered, well dressed, intelligent and carried a briefcase. It's all kind of amusing now that I think back on it. I think the thing to remember is that we were very cautious about the dissemination of sensitive information.

As far as I remember, I remained the Chairman for about a year and conducted most of the meetings and edited and published a meager newsletter. Through the first phase of the club, most members lived in Orange County with a handful from L.A., Riverside, and San Bernardino counties. The club at that time was intended entirely for southern California listeners but persons from other areas could join if they wanted to. I became less involved with the club for the next three years but did do a few important things and had a few amusing experiences which I'll relate again though they did appear in various issues of the "RCMA Newsletter."

All of the established and reliable radio listening clubs belonged (and still do) to the Association of North American Radio Clubs (ANARC). Most but not all of the clubs centered their interests around mediumwave and/or shortwave DXing. I was motivated to try to obtain membership for RCMA for what I felt were two very important reasons: 1) to help establish us and shape our image as true radio-electronics hobbyists in our own right and with respectability and not as pimple-faced, adolescent, fire engine-chasing nuisances and not as a criminal element arming themselves with "police scanners" and not as CBers with limited cerebral functioning who had monitor radios and colorful decals and drove around fantasizing that they were cops and 2) to gain further publicity since ANARC puts forth a continual effort to get the word out wherever possible about all its member clubs. After fulfilling the qualifications, we were accepted with Full Member status. Thanks to Dave Browne, ANARC Executive Secretary at the time, for his assistance and courtesy. I do believe that our membership in ANARC has been of value to us and certainly of value to those persons who were able to find us as a result of ANARC publicity efforts.

For several years, I subscribed to the "Journal of Public-Safety Communications", the publication of the Associated Public-Safety Communications Officers (APCO). In one issue they printed a short article on monitoring laws and made a request for evaluations of the effectiveness of the various laws in various states so that this info could be used when authoring new legislation. I took this as my cue and wrote a long letter to the editor presenting the law abiding hobby radio listener's side. They were impressed by what I had to say, wanted my picture, and used it as a feature article in the October 1977 issue. (Bully for me!) Law abiding monitor listeners cringe at the thought of restrictive monitoring laws and question, and rightly so, the value that such laws have in curbing criminal use of monitor receivers. The thrust of what I said was that criminals are not particularly deterred by robbery laws nor by gun laws nor are they nor would they be by restrictive monitoring laws. These laws do serve the necessary function, however, by providing a means of prosecution after the fact but fail miserably as a means of control. Therefore, monitoring laws should be written not with the intent to control the offending minority while at the same time imposing unfair restrictions on law abiding monitor listeners but instead adopted or rewritten so they focus on the penalties for misuse of information gained by use of monitor receivers and not for mere possession of monitor receivers. I put it this way, "If monitoring laws must be imposed, we wholeheartedly endorse West Virginia's law for what we consider to be a reasonable and appropriate law. It is simple, yet by its nature includes tuneable, crystal controlled, and synthesized receivers and includes mobile, handheld, and base station monitoring in any type of location and without the need to resort to technical radio terminology. It provides the means to prosecute those who come to police and fire scenes as well as the criminal and without affecting the freedom to listen that should be the right of all law abiding citizens. We hope that this law can serve as a basic model for new laws and rewritten laws replacing the many archaic, probably unconstitutional, and unreasonable laws that presently exist." Following is the West Virginia law (at that time and perhaps today), "No person shall intercept any message or transmissiom made on or any

communications system established by the Department of Public Safety and use the information obtained thereby to aid, abet, or assist in committing a crime, or in violating any law of this state, or use the same in a manner which will interfere with the discharge of the department's operations. Any person who violates any provision of this section shall be guilty of a misdemeanor, and, upon conviction thereof, shall be sentenced to confinement in the county jail for a period not to exceed one year, or by a fine of an amount not to exceed $500 or by both." I sincerely hope that my arguements were heard and that the article did have a beneficial effect for all of us.

On another subject -- on two or three occasions I directed meetings around the topic of what we, active monitor listeners, wanted in our receivers. I would take all the ideas and write them up and send them off to all the manufacturers. Bob Leef helped me get all the appropriate individuals' names and addresses. I really do think the manufacturers listened because we had gained recognition as a knowledgeable group of hobbyists with a growing following. We also put officials of all the manufacturers on the "RCMA Newsletter" mailing list. I remember at one of these meetings that I took a poll to see how many of us present wanted to have the aircraft band of 118-136 MHz included on synthesized scanners. I did not take the poll, however, until I had given an inspiring talk on the fun of aircraft monitoring. Actually, it was I who wanted such a receiver (after having monitored aircraft for 20 years on a World War II surplus receiver) and I was pulling all the strings I could. The poll showed that a fairly high percentage of us wanted the aircraft band included, of course. (Got to watch me, I'm tricky sometimes). It wasn't long and Regency appeared with the Digital Flight Scan (I still have mine and still use it). There is no way of knowing if my poll helped to put the aircraft band on synthesized scanners a little earlier than it would have otherwise appeared but I enjoy thinking that maybe I really did exert the necessary influence.

Military aircraft have always interested me, in fact, That's about the only thing I liked about the Air Force. When in the Air Force I saw a lot of 100 series fighters. I can remember F-101's beginning their takeoffs with a double "boom" as the afterburners started throwing flames into the icy cold Utah winter mornings. I enjoyed the sensation as it vibrated my chest and it had a certain crackle to it that did not seem to exist when it warmed to about 25 degrees. Closer to home, I have lived about 12 miles from March AFB and one day I was listening to the traffic on my radio (URR-35). There seemed to be more planes than usual so my wife and I went out to watch planes for a while. I normally parked on a road about 200 feet from their fence and from there I could get a nice panorama. I'd done it a number of times. This time, however, due to a lot of winter rain, the grasses and weeds had grown so high along the dirt road that the view was blocked. So, I proceeded down the road and parked in a clearing near the fence. We had just gotten comfortable and here came the Air Police, combat jackets and helmets on, guns out and ready for action. One guy screamed at length all kinds of legal crap at me and told me all the things they could do to us. The "show" was mildly entertaining but I'd really come there to watch airplanes. You would honestly have thought they'd caught several anti-war types with fence cutters in hand. After they calmed down a little, I found out what their problem was. The military boundry extended 30 feet beyond the fence. I offered what I felt was a reasonable solution -- "I'll back up 30 feet and watch airplanes and then you can go about your business." This was absolutely not acceptable! They told us that we were theirs. I explained that there was no sign visible on the fence and obviously numbers of other people had continually been parking there, evidence of which was the clearing itself and all the tire tracks. That meant nothing, we were on military property! They ran my driver's license over their radio system which due to their inefficiency and their stumbling over their own phonetic alphabet took at least a half hour. Finally, they decided I wasn't wanted but one of them had a bright idea that they should run my wife. I guess they were still hopeful. So, their fumbling and bumbling took another half hour to get that figured out. I'm sure glad they didn't spot my "450" amateur band 6 inch whip or they probably would have impounded my car. Then, apparently for lack of something to occupy their minuscule intellects, they got all concerned about exactly how far I was parked from the fence. My front bumper as I recall, was about two feet from the fence. Two feet was not exact enough, estimates were not acceptable, the dispatcher or whoever this mentally handicapped person was on the other end of the radio had to have it measured in inches. Well, this caused further delays because they had a problem locating a tape measure. I'm surprised they aren't still all standing out there some six years later trying to figure out this bewildering and complex intrusion onto military property. Bad attitude -- who me??

One time on a trip to Utah, I decided that I could collect as many Utah frequencies as I could while on my way to and while visiting friends in the Ogden area. During those years I traveled in a '63 Dodge panel truck (still have it). My wife and I had slept along the road somewhere and the following morning while pass-

ing through a small southern Utah town, I spotted a Radio Shack sign so I stopped to see if they sold scanners and to see if I could talk them out of some frequencies. The town was not big enough to support a regular Radio Shack store so this store was mostly a hardware store with several shelves devoted to Radio Shack items. While looking around I saw some 12 guage buckshot shotgun shells for a reasonable price and decided to buy some because they weren't always available in local gun stores in California. I practice with them and use them for my home protection riot gun. So, picture this -- here I am at the counter, unshaven, kind of dirty, tired-looking from traveling, hair longish and a little messed up, obviously not one of their town folk, two boxes of shotgun shells on the counter and I started asking about police frequencies. All of a sudden that ol' lady got a very strange look and didn't know a thing about scanners, police communications, frequencies and didn't know anyone who did. "But, you sell scanners," I said. Then I started to put it all together in my head. Here I am looking a little rough around the edges and she has become thoroughly terrified and convinced that I am here to rip off the entire town in a bloody massacre. I knew that's what she was thinking. She was very uneasy and I knew that the instant I was out the door she'd be on the phone to the local constable. I also knew I could have a very difficult time trying to believably explain (well, hey man -- I just really dig radios, that's all. And,.... could you loosen those handcuffs just a little?) all of this to some frowning small-town cop who was having visions of becoming a hero for capturing some interstate robbery suspect. So, believe me, when I got out to my truck, we jammed and didn't look back.

Maybe when I was thinking how prudent it would be for me to get out of town, the following incident was in the back of my mind. I was, at an earlier time, pulled over in this same truck by the CHP. I was driving along minding my own business. I had a tank-top on and my tattoos were showing. I had long hair and a beard and had two or three other long-haired freaks with me. I'd broken no laws. This CHP officer walked up to the driver's-side window and tried to stare me down. After he got tired of that, he checked my registration and license very carefully and then said, "You know, I stopped you because I saw your amateur radio license plate and you don't look like an amateur radio operator and I thought you might have stolen the truck." He was pretty decent at the end and he was alert (good cop, no hemorrhoids).

During the three years that I was less involved with the club, the editorship passed through a few hands and then an opportunity came up and I took it over again. The club had grown and was more stable and I had big plans and renewed enthusiasm. For the most part, I was given free reign over the publication by the Board of Directors. Up to this point it had been a two or three man operation. Also, word of the club got out across the country, thanks primarily to Gordon West and Gene Hughes. So, people from around the country began to join and then some began to complain. They would say that all we ever published was southern California information. This was for two reasons: 1) RCMA was primarily a club for southern California listeners and 2) no one was sending much from anywhere else. It did not seem unfair to publish mostly southern California information when we had mostly southern California members.

The time was right for new thinking. The solution? Go national all the way! At this point I instituted the multiple-editor system. The country was divided up into regions, each with a regional editor. I also started the Canada column and an International column so no one would be left out and no one could complain. Specialty columns were started, each with its own editor, many of the same ones still exist today. Believe me, it was a lot of work finding and sorting out people for the different jobs and conveying to each of them exactly what I wanted. I had definite ideas and tried not to settle for less -- a real challenge when everyone who works for you is a volunteer worker with praise and self-satisfaction being their own paycheck. I couldn't have done it without them and all their hard work. The newsletter became a huge success and the membership soared.

After awhile I stepped out of club envolvement again and have remained out and simply have been sitting back enjoying the fine publication that all those of you who contribute to it are producing. Right at the start, even before we had a name, I half seriously and half jokingly said to Jim Barrow, "you know, I'd like to help get a monitor club going and then step out and just enjoy being a member." Well gang, I'm just a member now.

Idew Rogers

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

For an annual subscription to the ANARC Newsletter, send $5 to:
Joe Barr, 1500 Bunbury Drive, Whittier, CA 90601. ($8 overseas subscription.)

ANARCON 1984, The celebration of ANARC's 20th anniversary July 20-22 will be hosted by Ontario DX Association. For more information send a SASE to ODXA, 3 Camrose Cresent, Scarborough, Ontario M1L 2B5, Canada

Central Maryland Dx Association meets on the 2nd Monday of each month. for information contact Tony Kobylski (301) 563 0039

There has been a disruption of the usual ANARC feed of news, hence a very short contribution this month. If we can obtain up to date information in the future, this column will continue; if not, it probably will not.

Aircraft

Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

EDITOR NEEDED FOR THIS COLUMN! SEE P. 6.

Here we are at the 100th issue of our RCMA Newsletter. This must be a source of pride for those of you who were there at the beginning as well as those of us who came along later giving rise to the growth of our club. Whatever success we have achieved must be credited to the membership for their contributions, to the management for their decisions and guidance, and finally to the editors for taking the time to write their monthly columns. And before anyone comes to the conclusion I may be giving myself a pat on the back, I want to add this is my final submission as the aircraft editor. Once again my sincere thanks go to all of you who have taken the time to write with your comments and frequency listings.

Like most of you, my listening is not confined to a single band or activity, but divided among several. Having been involved in flying and air traffic control for many years, the aircraft band provides me with some interesting listening. However, one of our readers reminded me that the real action comes through in the public service bands in law enforcement. And I agree that it has provided me with some great entertainment.

Many times I've read in our RCMA Newsletter the membership described as enthusiastic listeners. And this is an understatement. The zeal and persistence with which some of our members persue our hobby is a continuing source of amazement to me. For example, Brad Carpenter, OH-138, now a neighbor in Texas, called for information on various agencies in the Ft Worth-Dallas area. Although I was some help in the aviation band, I couldn't do much for him in the law enforcement area even though I spend at least half my listening time in this segment. Several weeks later, I found that he had acquired all the signal codes for the Ft Worth PD, as well as frequencies for nearly all the other communities in the area. Some, of course, were available from Police Call, but a large portion of the others he uncovered through research and intensive monitoring. He had developed more information in two weeks than I had in two years!

Aircraft continued

The following frequency listing and information concerning Dulles Intnl Airport was furnished by Major Willard Hardman, DC-011, who lives near airport. He also reports that "Speedbird" is the callsign for all British Airways aircraft, as well as the Concorde. This is something I should have remembered.

Last month received listings for the Detroit area from Jim Graustein, MI-125. Jim's letter arrived last month just after the column went in, so we are including the material here. Jim has the good fortune to be surrounded by three major airports, Detroit City 3 miles east, Detroit Metro 5 miles north, and Willow Run 8 miles west. For an avid listener in the aircraft band, you could hardly ask for more.

Detroit City

Tower	121.3
Ground	121.9
Approach	124.9
Departure	127.3

Willow Run

Tower	120.0
Ground	121.9
Snow removal and runway maintenance	453.475

Detroit Metro

Tower	118.4
Departure	118.95 and 120.15
Approach	124.05 and 124.25
Ground	121.8
Clrnc Del.	120.65
Snow removal and runway maintenance	453.450

Heliports

	123.3
	123.05
	123.075
Helicopters	123.5
	123.3
	123.025

Coast Guard Search and Rescue 123.0 and 122.9

- -

Dulles

Dulles International Airport is located at Chantilly, Va, approximately 18 miles from downtown Washington, D.C. Currently, it serves 20 scheduled and commuter airlines as well as handling General Aviation and Military air traffic. There are also a substantial number of Chartered Air Carriers, both passenger and cargo, that use "IAD." Dulles and Washington National Airports are different from most other commercial airports in that they are owned and operated by the FAA.

Airlines:

American	British Air	Braniff	Continental
Eastern	Frontier	NW Orient	Pan American
Peoples Exp	Republic	TWA	United
U.S. Air	Western	Air Virginia	Americair
Christmas	Colgan	Mid-South	Pegasus

Page Aviation Operates the General Aviation Facilities and Services.

Frequencies

ATIS	134.85	Unicom	122.95
TOWER	120.1	Ground	121.9
Clearance Del	127.35		
Approach/Departure			
007 deg to 097 deg	126.1		
098 deg to 225 deg	120.45		
226 deg to 007 deg	126.65		
Alternates	125.05 and 119.2		

Airline Operations

Airline	Ground	Enroute
American	460.775	129.225
United	460.725	129.3
TWA/Braniff	460.675	130.225
Eastern	460.7	130.9
Pan American	460.65	129.7
Page Avn	460.825	122.95
Colgan		129.65
NW Orient		131.7
Peoples Express		130.525

Aircraft continued

Republic	131.75
Western	130.55
Air Virginia	131.95
Americair	129.8
Pegasus	129.025
Crash/Rescue	165.5
Police	165.71

Our thanks to Darrell Charest, retiring Aircraft Editor, for a column filled with content, humor, and style. This was his last column as editor, but the Newsletter hopes to hear from him as a contributor!

Editor

Beginners ??? Corner

If you are new to monitoring, or have something you don't understand, please write to me at the address given below and I will try to answer your question. When possible, your questions and answeres will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

Bob Quinlan, 2210 N. Menard, Chicago, IL 60639

No column again this month; are there no more "beginners?" out there? Bob reports no mail for some time now, so this columnhead will be printed each month in the hope that questions will again come his way. When they do, you'll see a "Beginners Corner."

Editor

Business, Etc.

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufactureers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police; amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to:

Brandt Niemuth, P.O. Box 541, Rosemont, IL 60018

Welcome to another chapter in the ongoing saga of the "Business Band" world.

From Jim Cavanaugh (IL-060), Palatine, Ill area comes the following:

154.625		Saint Joseph Old Age		
154.625	KOB 508	Hillary's	Chicago	
154.515	KCJ 619	Carlson Heating & Cooling	Glenview	
151.925	KBS 278	Allied Maintenance	Chicago	
*151.865	KES 741	Northwestern University	Evanston	- Paging Maint
458.9	KSZ 331	Harper College (Security)	Palatine	
463.825	KQR 796	Lockheed Corp	Chicago	

* Ed Note: also at Northwestern University in Evanston the freq: 463.475 KCC 774 is used by the their Dept of Public Safety.

From Jim Sorol (CA-SF-030) more Bay Area Listings:

Business, Etc. continued

152.48	KNFA945	IBM Research & Development	San Rafael
152.48	KFY 207	IBM Research	San Fransico
154.54	WQL 760	Stat Paging Systems	Napa/Calistoga
462.825	KQL 458	Fairmont Hotel	San Fransico
462,85	KUD 555	IBM Research & Development	Oakland
490.3375	KVT 438	IBM Research & Development	San Fransico
151.655	KXY 348	Bechtel Communications	San Fransico
151.835	KYI 410	Humane Society of Sonoma Cty	Santa Rosa
151.895	KXG 579	S F Sheraton Airport Co	Burlingame
154.54	KIC 534	Parrish Photography	San Bruno
451.75	WHE 79	Chevron Telecommunications	San Fransico
460.9	KNAX926	Vangas Inc	Los Gatos
460.9	WAK 530	Vangas Inc	Hayward
460.9	KRN 304	Wells Fargo Alarms	San Jose
452.875	KAA 785	Viking Freight System	Milfitas
853.8875	KN 6857	R E Jones Inc	
853.8625	WQP 582	California Plant Protection	San Francisco
461.6	KNAU565	KochSecurity Patrol	Milfitas
461.6	KNBY398	Jack H Neal	Kellogg
461.6	KNDG320	Payless Plumbing	Uacaville
35.7	KCY 278	Courtesy Tow Service	San Francisco
150.92	WXF 950	Calif State Automobile Assn	Glen Ellen
450.25	KRJ 519	Starr KABL Inc	Oakland
450.0875	KKN 755	CBS Inc - Used by KCBS	
450.35		KHTT - Traffic Report	
450.35		KPEN - Traffic Report	

Pacific Gas & Electric (PG & E):

153.485	KMH 465	Richmond	158.19	KMD 977	Santa Rosa
153.56	KMB 519	Belmont	158.205	KMD 582	Napa
153.65	KMH 455	San Francisco	158.235	KLN 406	Oakland
158.13	KMH 368	Hayward	451.05	KMF 616	San Francisco
158.13	KME 299	Livermore	451.15	KMH 465	Richmond
158.13	KMF 227	Fremont			

Also included this month is more Boston, Mass News Media freqs- courtesy of Mark (MA-045). Thanks to one and all for this month's listings.

TRAFFIC REPORTING IN BOSTON

WBZ AM 455.650 131.050 'BZ HELICOPTER TO DIGITAL COPTERS

"JOE GREENE" PILOT AND ANNOUNCER IN HELICOPTER
"JOHN NOLAN" BOSTON POLICE PATROLMAN IN CHOPPER AND CRUISER
"RADIO NEWS" NEWSROOM
OTHER "NAME" UNITS ARE REPORTERS WHO WILL GIVE GROUND REPORTS TO THE HELICOPTER.
WBZ ALSO USES REPORTS FROM THE DIGITAL CORP. CHOPPER FLEET FOR THE OUTLYING AREAS. THEFT PATROL IS A WBZ/BPD CO-OP IN WHICH THE PUBLIC IS ENCOURAGED TO CALL 'BZ WITH STOLEN CAR REPORTS. THE HELICOPTER IS "YANKEE AIR 1" ON THE BPD RADIO SYSTEM AND "YANKEE AIR 2" IS THE THEFT PATROL CRUISER.

WEEI AM 455.850

"KEVIN O'KEEFE" ANNOUNCER IN HELICOPTER
"BASE" NEWSROOM

WHDH AM 455.1125

"SKYWAY" HELICOPTER(METROPOLITAN POLICE OFFICER BILL O'CONNELL)
"NEWS" NEWSROOM
"CVS 1" MOTORIST AID VAN ROUTE 128
"CVS 2" " " " CENTRAL ARTERY
"CVS 3" " " " SOUTHEAST XWAY
"MOBILE 3, 17, ect... STATION PERSONNEL WHO GIVE GROUND REPORTS. THE CVS VANS ARE PART OF THE CVS CORPORATION'S GOOD SAMARITAN PROGRAM. THESE VANS CARRY EMERGENCY EQUIPMENT, FLARES, GAS, JUMPER CABLES, ect... THE 'HDH COPTER IS "AX-1" ON THE METROPOLITAN POLICE RADIO SYSTEM & OFFICER BILL O'CONNELL'S CRUISER IS "156". WHEN GROUNDED HE IS "MOBILE 10".

Business, Etc. continued

METRO TRAFFIC CONTROL 464.550

"COPTER" HELICOPTER
"BASE" CONTROL CENTER
"UNIT 11" CENTRAL ARTERY NORTH, ROUTE 93, ROUTE 128 UPPER
"UNIT 17" " " SOUTH, MASS. PIKE EXTENSION
"UNIT 6" SOUTHEAST XWAY, ROUTE 128 LOWER
"UNIT 5" MASS PIKE, ROUTE 128 CENTRAL
REPORTS THAT ARE AIRED FROM MOBILE UNITS ARE TAPED OVER LAND LINES.

BOSTON HELICOPTER CONTROL
LOGAN TOWER
121.750

BOSTON GARDEN SECURITY 154.600 KE 7121

BASE - CONTROL CENTER
ECHO 1 - DIRECTOR OF SECURITY
ECHO 2 - OFFICER IN CHARGE
ALPHA - RESPONSE TEAM 1 (1 SGT, 5 MEN)
BRAVO - RESPONSE TEAM 2 "
CHARLIE- RESPONSE TEAM 3 "
DELTA - RESPONSE TEAM 4 "
FOXTROT- EXTRA RESPONSE TEAM (CONCERTS, ECT...)
UNITS 1 to 5 - MAINTENANCE STAFF
UNITS 6 to 9 - SUPERVISORS
UNITS 11 to 20 - 1 MAN POSTS (RAMPS,STAIRWAYS, ECT...)
K 1 to K 5 - K9 OFFICERS (EXTERIOR,PARKING LOTS,RAMPS)

CBS SPORTS REMOTES FROM THE BOSTON GARDEN(CELTICS GAMES)

450.350 CAMERA CUES
450.512 ENGINEERING
450.212 SET UP
161.640 IFB

(ALL OF THESE FREQS ARE MONITOR CONFIRMED)

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to:

Rob Berezowski, 211 Costigan Bay, Saskatoon, Saskatchewan, S7J 3P4 Canada

Hello all and welcome again to the Canada column. The weather here in Saskatoon has improved again. We're almost ready for the sun tan oil, now all we need is a beach! Things are starting to wind down at the U of S, but finals are fast approaching. The electrical engineers are sponsoring a formal banquet tomorrow. Various awards and gifts are given to staff and students. In the past the students have been known to throw dinner rolls and such at the professors while they are speaking. It should prove interesting.

Some of the members who have written in during the past few months have complimented me on the good job I have done as the Canada editor. I would like to thank you all for your kind comments, but I cannot take all of the credit myself. A big thank you goes out to all of the members who have contributed to the column, especially the regular contributors. We all know who these regular contributors are, but if you have contributed (even just once), you can give yourselves a pat on the back. I can't put out this column without your support. Also of course we cannot forget the crew in California. Every month they put out a high class newsletter, and considering the amount of

work necessary, they make very few mistakes. Thanks again.

This is beginning to sound like PBS Pledge Week: "Please send your tax-deductible donations to ..." Just kidding gang, but I would like to mention that contributions to the column are always welcome, and needed now. Tom (CAN-084) has sent in an article on the new OPP radio system. The cost of the system has gone up, as explained in the article. The clipping comes from the London Free Press of March 2, 1984. Personally, I was a little suspiscious of the estimate of 24 million dollars when I read the description of the province-wide system. State of the art costs money, so I am not surprised the cost has risen. Thanks for the article Tom.

From another reliable member I have a big list of frequencies. I will be publishing the list in segments, and the first installment from Guy (CAN-031) appears below.

$17 million spent already

Price of radio system still unknown

TORONTO (CP) — Officials from the Ontario solicitor-general's ministry refused to say Thursday how much a police radio system will eventually cost. The system, part of which will be tested in London, has already almost tripled in price since it was approved.

"We're doing a competent job as quickly as it can be done," Rod McLeod, deputy solicitor-general, told the legislature's public accounts committee. "It would be foolhardy to be ballparking guesses at this time."

The committee is examining the report of Ontario auditor Douglas Archer, which says the estimated cost of the system for Ontario Provincial Police was $24.4 million in January, 1980, but increased to $54.4 million by 1982 and has since been pegged at $66 million to $71 million.

McLeod said a final cost estimate of the project won't be ready until at least the fall after tests are done on a portion of the system in London.

Originally to have been completed last year, it is not expected to be ready until 1987. About $17 million has been spent so far and another $14 million approved by cabinet for the project.

The system is to provide centralized dispatch facilities, portable radios extending communication outside police cars and improved public telephone access.

Archer said the estimate increases resulted from inadequate financial and management controls over the project. It was one of numerous such instances he cited in his yearly report which have fuelled opposition concerns about lack of accountability in government spending.

Committee members were surprised Thursday that no updated cost estimate was available.

"I find it incredible you sit before us and say you still have no idea what it's going to cost," said Pat Reid, Liberal chairman of the committee. "What the devil's been going on for the last seven years?"

McLeod said the latest estimate isn't unduly high, but the original estimate made by an engineer still on the project was too low.

Because of pressure "from the uniformed members" of the OPP to get the system, which will replace one almost 40 years old, insufficient preliminary design and engineering work was done, he said.

Margaret Scrivener (PC-Toronto-St. David) said bureaucrats might have deliberately underestimated the costs so they could start the project.

"It may not have been a bad technique to get political approval," she said.

McLeod said ultimate responsibility lay with the two top civil servants at the time the project was proposed — commissioner of the Ontario Provincial Police and deputy solicitor-general, both since retired.

New Democrat Bud Wildman said blame should be laid on the top politician involved, Attorney-General Roy McMurtry, who also served as solicitor-general when the project was approved.

Wildman said later in an interview he resented the fact McLeod and others who came before the committee have only become involved with the project since problems came to light.

Individuals connected with the project in its early stages should have appeared, he said.

McLeod said a team of supervisors set up 14 months ago when cabinet became concerned about the management of the project is ensuring the system is set up in a responsible manner.

Completion of the project is still three years away because when the original estimate doubled, there was "some slowing down to ensure we knew what we were doing."

226.10	All Cda	CF Sky Hawks-Parachute Demo Team
364.20	Norad Direction Centres	Special Military Advsy Svc
299.00	Toronto, Ont	CNR
250.60	Ottawa, Ont	National Research Council
256.70	Churchill, Man	" " "
271.20	" "	" " "
287.10	Winnipeg, Man	Bristol Aerospace Ltd
225.50	Toronto, Ont	Collins Radio Co of Cda Ltd
300.00	" "	" " " " " "
399.95	" "	" " " " " "
311.50	Cartierville, PQ	Canadair Ltd
173.640	All Cda	Cdn Automobile Association
165.990	Burnaby, BC	BC Automobile Association
460.7375 / 465.7375	" "	" " "
461.5875 / 466.5875	Vancouver, BC	" " "
465.7375 / 460.7375	" "	" " "
164.880	Calgary, Alta	Alberta Motor Association
165.990	" "	" " "
"	Edmonton, Alta	" " "
"	Lethbridge, Alta	" " "
"	Medicine Hat, Alta	" " "
166.440	Edmonton, Alta	" " "
165.930	Moose Jaw, Sask	Saskatchewan Motor Club
"	Saskatoon, Sask	" " "
165.990	Regina, Sask	" " "
165.990	Winnipeg, Man	Manitoba Motor League
159.645	Hamilton, Ont	Hamilton Automobile Club
167.505 / 163.725	Brantford, "	" " "
464.4500	Hamilton, "	" " "
158.400	Barrie, Ont	Ontario Motor League
"	Brampton, Ont	" " "
"	Orillia, Ont	" " "
"	Toronto, Ont	" " "
165.960	Cambridge, Ont	" " "
"	Downsview, Ont	" " "
165.990	Cookstown, Ont	" " "
"	Richmond Hill, Ont	" " "
"	Cambridge, Ont	" " "
"	Toronto, Ont	" " "
"	Kitchener, Ont	" " "
"	St Thomas, Ont	" " "
"	Ottawa, Ont	" " "
"	London, Ont	" " "
"	Sault Ste Marie, Ont	" " "
"	Waterloo, Ont	" " "
"	Windsor, Ont	" " "
166.020	Agincourt, Ont	" " "
168.450 / 164.430	Thunder Bay, Ont	" " "
168.495 / 164.490	" " "	" " "
169.980	Downsview, Ont	" " "
454.0500 / 459.0500	Montreal, PQ	Montreal Touring Club
166.020	Ste Foy, PQ	Quebec Automobile Club
418.5750	All Cda	Club Hockey Les Nordiques Inc
173.700	Calgary, Alta	Alta Liquor Control Board
454.2125	Millhaven, Ont	Urban Transit Development Corp
151.115	Toronto, Ont	Ont Stock Yards
172.470	" "	" " "
460.7750 / 465.7750	Vaughan, Ont	Canada's Wonderland Ltd - Fire Dept
461.2000 / 466.2000	" "	" " " - unknown use
462.4500 / 467.4500	" "	" " " - " "

Canada continued

173.250	Ottawa, Ont National Defence HQ- Military Police
156.575	Hnausa, Man DND- Gimli Sailing Camp
157.740 / 152.480	Whitehorse, YT " - Cadet Camp
" "	CFB Kingston, Ont DND- 70 Comm Gp (SO Tech)
" "	Cda East (PQ) Dept of National Defence
" "	Cda West (Ont) " " " "
" "	Prince George, BC " " " "
149.800	CFB Valcartier, PQ " " " "
164.430 / 168.450	Prince George, BC " " " "
168.555 / 164.535	St Honoré, PQ " " " "
409.0125 / 420.0125	CFB Winnipeg, Man " " " "

From GUY (CAN 031)

RCMP in use in the YUKON TERRITORY

49.000	Dawson
155.130	Yukon - mobile
155.160	Yukon - mobile
155.295	Yukon - mobile
155.460	Whitehorse, Yukon - mobile
155.595 / 154.905	Yukon - mobile
155.640	Yukon - mobile, All Cda - mobile
155.670	Carmacks, Faro, Carcross, Whitehorse, Teslin, Pelly Crossing, Old Crow, Mayo, Dawson, Beaver Creek, Ross River, Haines Junction, Watson Lake, All Cda - Mobile
155.700 / 154.950	Yukon - mobile
155.745 / 155.175	Yukon - mobile
155.850	Whitehorse, Yukon - mobile
155.850 / 155.160	Pelly Crossing
155.910	Carmacks, Faro, Old Crow, Haines Junction, Teslin, Mayo
155.910 / 155.160	Pelly Crossing
155.970	Carcross, Dawson, Beaver Creek, Ross River, Watson Lake
155.970 / 155.160	Pelly Crossing
155.985 / 155.325	Yukon - mobile
456.8375	Yukon - mobile, All Cda - mobile

From GUY (CAN031)

RCMP Frequencies in use in the NORTH WEST TERRITORIES

153.590 / 152.930	Pine Point - mobile
155.130	Yellowknife
155.460	Fort Resolution, Baker Lake, Cambridge Bay, Fort Rae, Yellowknife, Sachs Harbour, Hay River, Snowdrift, Spence Bay, Aklavik, Fort Smith, Fort Liard, Fort Simpson, Fort Providence, Tungsten, Fort Franklin, Pine Point, Coppermine, Fort Good Hope, Fort Norman, Eskimo Point, Igloolik, Norman Wells, Rankin Inlet, Resolute Bay
155.670	Cambridge Bay, Norman Wells, Inuvik, Fort Rae, Fort Franklin, Yellowknife, Aklavik, Igloolik, Fort McPherson, Tuktoyaktuk, Fort Norman, Fort Good Hope, Hay River, Snowdrift, Fort Smith, Fort Liard, Resolute Bay, Spence Bay, Eskimo Point, Frobisher Bay, Cape Dorset, Fort Simpson, Sachs Harbour, Fort Providence,

	Fort Resolution, Pine Point, Tungsten, Coppermine, Rankin Inlet, Pond Inlet, Baker Lake, All Cda - mobile
155,640	All Cda - mobile
456.8375	All Cda - mobile

Well guys and gals, that is all for this month. Until next time, take care and happy listening. Remember that your contributions are needed, and with that I will sign off from Saskatoon.

COMMUNICATIONS PROFILE

Cliff Polkinghorn, 14310 Acacia St., San Leandro, CA 94579

This column is for special projects that explain various radio systems in detail. Frequencies and radio codes of not only municipal agencies and certain federal government agencies may be listed, but also large businesses and corporations. The contribution must be lengthy enough that publishing it in one of the regular columns would not be possible. If you are inclined to submit a report as the one below appears, please follow No. 8 in the inside front cover of the Newsletter.

Welcome to JUNE 1984---and CONGRADULATIONS TO ALL--FOR OUR 100th EDITION OF THE R.C.M.A. NEWSLETTER. I personnally have not been a member since "DAY ONE", but I do hold original copies of all past issues. As I look back thru these past issues, I can definitely see how this ASSOCIATION has progressed--and grown into what we have today. ALL MEMBERS AND STAFF SHOULD BE PROUD OF THIS ACCOMPLISHMENT, and JOIN IN THE CELEBRATION.

NOW---ON TO THE COLUMN FOR THIS MONTH--SACRAMENTO CITY FIRE--

THIS INFO IS PROVIDED TO US BY FRANK BAUMGARTEL, and the SACRAMENTO FIRE BUFF CLUB (Frank is a founding member)
SACRAMENTO FIRE BUFF CLUB- PO BOX 13862-A, SACRAMENTO, CA. 95853-3862

+ + + + + + + + + + + + GENERAL INFORMATION + + + + + + + + + +

POPULATION:	264,400
AREA:	96.1 Sq. Miles
HEADQUARTERS:	Room 3, City Hall, 915 "I" Street (Administrative Office) (Fire Prevention) (Weed Abatement)
STATIONS:	18 Stations (See Battalion Listings) (18 Engine Companies) (9 Truck Companies) (3 Battalions)
FIRE ALARM:	1616 28th Street (Middle of Winn Park)
TRAINING DIVISION:	3230 "J" Street, Rear.
MAINTANANCE DIVISION:	3230 "J" Street, Rear.

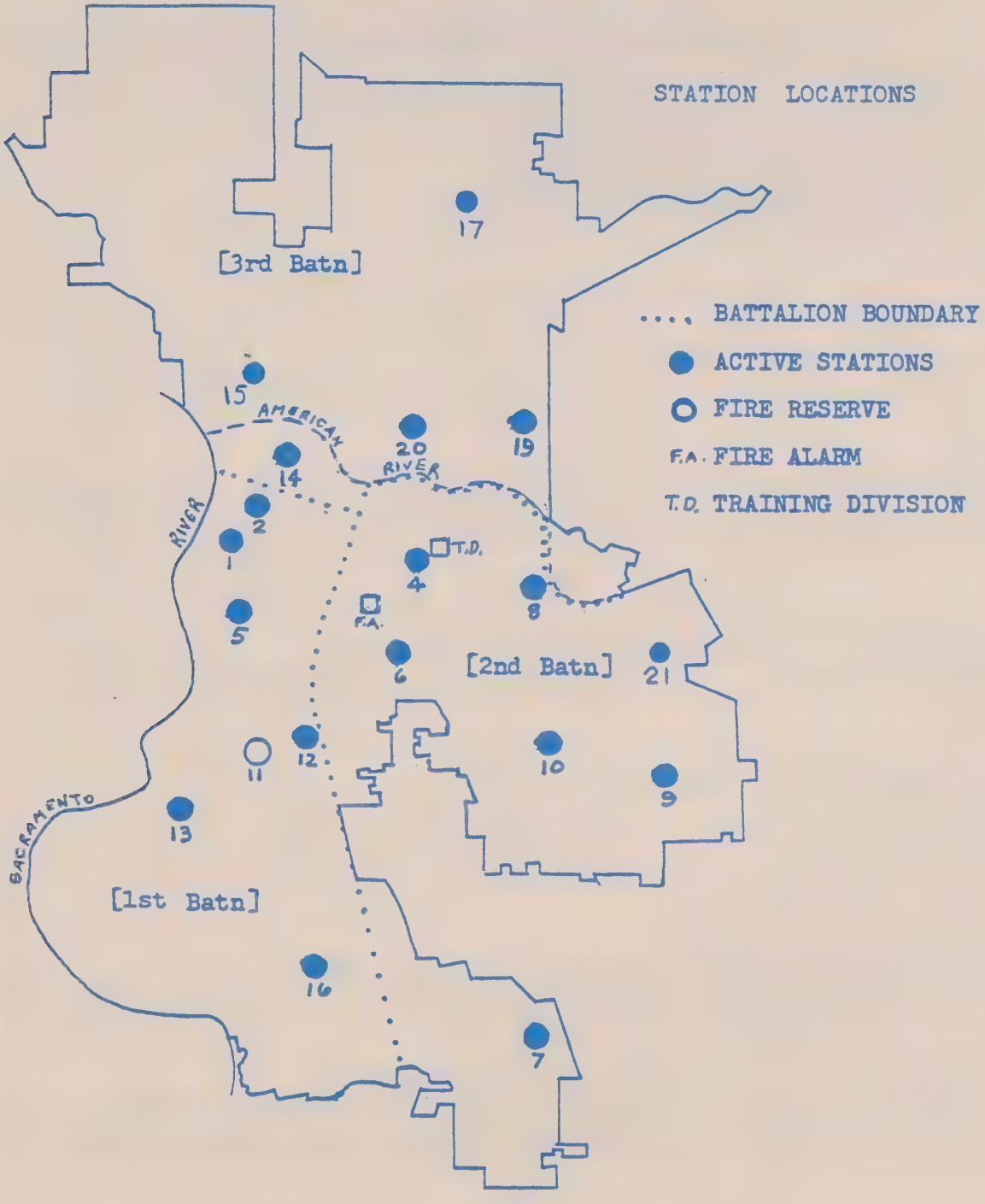
FIRE ALARM MAINTENANCE HANDLED BY CITY ELECTRIC DEPARTMENT.

APPARATUS MAINTANANCE HANDLED BY CORPORATION YARD, VEHICLE MAINTENANCE SHOPS.

+ + + + + + + + + + + +

Communications Profile continued

P	Indicates Truck Company with platform.
LT	Indicates Truck Company with ladder-tower.
(T)	Indicates Truck with "Tiller".
(RT)	Indicates Truck with rear end turn table.
R	Indicates major paint color is red.
W	Indicates major paint color is white.
CY	Indicates major paint color is chrome-yellow.
LY	Indicates major paint color is lime-yellow.
(G)	Indicates vehicle with gasoline engine
(D)	Indicates vehicle with diesel engine



* * * * * APPARATUS OF SACRAMENTO FIRE RESERVE * * * * * *

(1763) 1961 Coast . (G) .... 1250 X 500 ..... R
(2631) 1958 Chevrolet .(G) ..... SQUAD 1 ...(Walk-in Van) ..... CY
(3818) 1953 Reo .. (G) ..... SQUAD 2 ...(Ex OES Rescue 8).. W

* * * * * OFFICE OF EMERGENCY SERVICES VEHICLES * * * * *

OES 197 1976 Van Pelt/International . (D) . 1000 X 500 ..... LY
* OES 200 1969 International Tractor
1977 Trailer ..... (D) . 4000 gpm ..... LY

* OES 200 is "SHARPS UNIT [Special Hose And Relay Pump System]
Tractor has 1000 gpm skid mount pump.
Trailer has two four wheel trailer pumps, each 1500 gpm.
Trailer carries 5200 ft. of 5" hose and 800 ft. of 2½" hose.

(Tractor was used to pull OES pipe trailers.)
(Trailer was built at OES shops in Sacramento.)

* * * * * * * MISC. INFORMATION * * * * * * * * * * *
RADIO FREQUENCIES USED BY SACRAMENTO FIRE DEPARTMENT

153.890 (Fire 1) Main frequency used by all fire units.
153.950 (Fire 2) Used by Chief Officers, Fire Alarm & Command Post.
154.190 Sacramento County Fire Net.
154.280 Mutual Aid Net (White Channel).
33.980 (154.160 Repeater) OES Radio.
33.660 (154.220 Repeater) OES Radio.

* * * * 1st BATTALION * * * *

BATTALION HEADQUARTERS Station No. 2

STATION No. 1 - 630 "Q" Street (At 7th Street)
(4563) Engine 1 1980 Seagrave (D)... 1500gpm X 1000gal. ... LY
(3634) Truck 1 1974 Calvar Firebird (D)..... 150' P ..... LY
(4331) Hose Wagon 1 1978 Ford/ Welch (G).... 1800' 4" Hose
600' 2½" Hose ... LY
400' 1½" Hose

STATION No. 2 - 819 9th Street (Near "I" Street)
(2901) Engine 2 1970 Howe (G)..... 1250gpm X 500gal. ..... R
(4096) Pickup 2 1977 Chevrolet (G) (Small pump & 50 gal.).. LY

STATION No. 5 - 731 Broadway (At 8th Street)
(4564) Engine 5 1980 Seagrave (D)... 1500gpm X 1000gal. ... LY
(4212) Truck 5 1977 Seagrave (D)..... 100' A (RT)..... LY
(4402) Hose Wagon 5 1978 International/Welch (G)(See HW 1)..... LY
*(4236) Light Plant 5 1977 Chevrolet/ Welch (G)..... W/CY

STATION No. 12 - 4500 24th Street (At 20th Avenue)
(3540) Engine 12 1974 Seagrave/Ford (D). 1250gpm X 500gal. . LY
(4427) Compressor 12 1978 International/ Welch (G).....LY

STATION No. 13 - 1100 43rd Avenue (At Gloria Drive)
(4833) Engine 13 1981 Seagrave (D)... 1500gpm X 1000gal. ... LY
(3417) Truck 13 1973 Seagrave/Ford (D).... 100' A (T) ..... R
(3671) Water Wagon 13 1975 International/Welch (G)300gpm X 500gal.LY

STATION No. 16 - 7363 24th Street (At Gardendale Avenue)
(3837) Engine 16 1976 Howe/Ford (D).. 1000gpm X 500gal. .... LY
(2097) Truck 16 1965 Seagrave (G)..... 100' A (T) ..... R
(4964) Water Wagon 16 1982 GMC/Cal-Pac (G).. 250gpm X 500gal. ... LY

* *

*Light Plant 5 is also equipped as a Haz-Mat truck

* * * * 2nd BATTALION * * * *

BATTALION HEADQUARTERS Station No. 6

STATION No.4 - 3145 Granada Way (At Seville Way)
(3543) Engine 4 1974 Seagrave (D).. 1500gpm X 500gal. ..... LY

STATION No. 6 - 3301 Sacramento Blvd. (At 8th Avenue)
(3541) Engine 6 1974 Seagrave (D).. 1500gpm X 500gal. ..... LY
*(4865) Truck 6 1972 Calvar Firebird (D)..... 150' P ..... LY
(3612) Pickup 6 1975 Chevrolet (G)..... W

* Truck 6 was acquired from Tucson, Az. in 1982

STATION No. 7 - 6500 Wyndham Way (At Valley Hi Drive)
(3386) Engine 7 1973 Howe/Ford (D).. 1250gpm X 500gal. .... R
(3133) Tanker 7 1963 GMC (G)..... 800gal. ..... R

STATION No. 8 - 5990 "H" Street (Near Carlson Drive)
(4562) Engine 8 1979 Seagrave (D).. 1500gpm X 1000gal. .... LY
(3804) Truck 8 1975 Calvar Firebird (D)..... 90' P ..... LY
(2400) Command Post 1966 International Van (G)..... LY
(1573) Rescue Boat 8 1951 Jeep (G)..... R
- With 12' alum. boat on trailer

STATION No. 9 - 5801 Florin- Perkins Road (At Unsworth Avenue)
(2490) Engine 9 1967 Howe (G)..... 1250gpm X 500gal. ..... R
(3676) Water Wagon 9 1975 International/Welch (G)300gpm X 500gal.LY

STATION No. 10 - 5642 66th Street (Near Fruitridge Road)
(3836) Engine 10 1976 Howe/Ford (D)... 1000gpm X 500gal. ... LY
(3539) Truck 10 1974 Seagrave/Ford (D)..... 100' A (T) .. LY
(4966) Water Wagon 10 1982 GMC/Cal-Pac (G).. 250gpm X 500gal. ... LY

STATION No. 21 - 3301 Julliard Drive (At Occidental Drive)
(2371) Engine 21 1966 Howe (G)..... 1250gpm X 500gal. ..... R
(3672) Water Wagon 21 1975 International/Welch (G)300gpm X 500gal.LY

* * * * 3rd BATTALION * * * *

BATTALION HEADQUARTERS Station No. 20

STATION No. 14 - 1341 North "C" Street (Near Ahern Street)
(3542) Engine 14 1974 Seagrave (D)... 1500gpm X 500gal. ... LY
(4332) Hose Wagon 14 1978 Ford/SFD (G)..... See HW 1 ..... LY

STATION No. 15 - 1591 Newbrough Drive (At Truxel Road)
(3081) Engine 15 1971 Howe/Ford (D)... 1250gpm X 500gal. .. R
(4963) Tender 15 1982 GMC/Cal-Pac (G).. 250gpm X 500gal. ... LY

STATION No. 17 - 1311 Bell Avenue (At Marysville Blvd.)

(3838) Engine 17	1976 Howe/Ford (D).... 1000gpm X 500gal. .	LY
(1983) Truck 17	1963 Peter Pirsch (G)..... 100' A (T)	R
(4965) Water Wagon 17	1982 GMC/Cal-Pac (G).. 250gpm X 500gal. ..	LY

STATION No. 19 - 1700 Challange Way (At Response Road)

**(4249) Engine 19	1977 American La France (D).1500gpm X 500gal	LY
(4553) Tender 19	1979 Seagrave/Ford (D).. 1000gal X 500gal.	LY
(4428) Compressor 19	1978 International/Welch (G).....	LY

** Engine 19 has a 50' Telespurt nozzle

STATION No. 20 - 300 Arden Way (At Del Paso Blvd.)

(2550) Engine 20	1967 Howe (G)..... 1250gpm X 500gal.	R
(4072) Truck 20	1976 LTI/Duplex (D)..... 85' LT (RT)	LY
(4607) Light Plant 20	1979 Chevrolet/Welch (G).....	W/CY
(4349) Pickup 20	1978 Chevrolet (G).....	LY

* *

APPARATUS OF SACRAMENTO FIRE DEPT. AS OF 1-1-83

(4563) ENG 1	1980 SEAGRAVE	(D)	1500X1000	LY
(2901) ENG 2	1970 HOWE	(G)	1250X500	R
NO ENGINE #3 AT PRESENT TIME				
(3543) ENG 4	1974 SEAGRAVE	(D)	1500X500	LY
(4564) ENG 5	1980 SEAGRAVE	(D)	1500X1000	LY
(3541) ENG 6	1974 SEAGRAVE	(D)	1500X500	LY
(3386) ENG 7	1973 HOWE/FORD	(D)	1250X1000	R
(4562) ENG 8	1979 SEAGRAVE	(D)	1500X1000	LY
(2490) ENG 9	1967 HOWE	(G)	1250X500	R
(3836) ENG 10	1976 HOWE/FORD	(D)	1000X500	LY
NO ENGINE #11 AT PRESENT TIME				
(3540) ENG 12	1974 SEAGRAVE/FORD	(D)	1250X500	LY
(4833) ENG 13	1981 SEAGRAVE	(D)	1500X1000	LY
(3542) ENG 14	1974 SEAGRAVE	(D)	1500X500	LY
(3081) ENG 15	1971 HOWE/FORD	(D)	1250X500	R
(3837) ENG 16	1976 HOWE/FORD	(D)	1000X500	LY
(3838) ENG 17	1976 HOWE/FORD	(D)	1000X500	LY
NO ENGINE #18 AT PRESENT TIME				
(4249) ENG 19	1977 AMER. LA FRANCE	(D)	1500X500/50'sqt	LY
(2550) ENG 20	1967 HOWE	(G)	1250X500	R
(2371) ENG 21	1966 HOWE	(G)	1250X500	R
(1609) RESV. ENG.	1958 VAN PELT/FORD	(G)	1250X500	R
(1613) RESV. ENG.	1959 VAN PELT/DIA T	(G)	1250X500	R
(1776) RESV. ENG.	1961 COAST	(G)	1250X500	R
(1893) RESV. ENG.	1962 COAST	(G)	1250X500	LY
(3634) TRUCK 1	1974 CALVAR FIREBIRD	(D)	150' P	LY
(4212) TRUCK 5	1977 SEAGRAVE	(D)	100' A (RT)	LY
(4865) TRUCK 6	1972 CALVAR FIREBIRD	(D)	150' P	LY
(3804) TRUCK 8	1975 CALVAR FIREBIRD	(D)	90' P	LY
(3539) TRUCK 10	1974 SEAGRAVE/FORD	(D)	100' A (T)	LY
(3417) TRUCK 13	1973 SEAGRAVE/FORD	(D)	100' A (T)	R
(2097) TRUCK 16	1965 SEAGRAVE	(G)	100' A (T)	R
(1983) TRUCK 17	1963 PETER PIRSCH	(G)	100' A (T)	R
(4072) TRUCK 20	1976 LTI/DUPLEX	(D)	85' LT (RT)	LY
(2225) RESV. TRUCK	1963 ALF/FORD	(G)	75' A	R
(1734) RESV. TRUCK	1960 PETER PIRSCH	(G)	100' A (T)	R
(0614) RESV. TRUCK	1947 AMER. LA FRANCE	(G)	85' A	R
(4963) TENDER 15	1982 GMC/CAL-PAC	(G)	250X500	LY
(4553) TENDER 19	1979 SEAGRAVE/FORD	(D)	1000X500	LY
(4331) HOSE WAGON 1	1978 FORD/WELCH	(G)		LY
(4402) HOSE WAGON 5	1978 INTER./WELCH	(G)		LY
(4332) HOSE WAGON 14	1978 FORD/SFD	(G)		LY
(3676) WATER WAGON 9	1975 INTER./WELCH	(G)	300X500	LY
(4966) WATER WAGON 10	1982 GMC/CAP PAC	(G)	250X500	LY
(3671) WATER WAGON 13	1975 INTER./WELCH	(G)	300X500	LY
(4964) WATER WAGON 16	1982 GMC/CAL PAC	(G)	250X500	LY
(4965) WATER WAGON 17	1982 GMC/CAL PAC	(G)	250X500	LY
(3672) WATER WAGON 21	1975 INTER./WELCH	(G)	300X500	LY

Communications Profile continued

(3133) TANKER 7	1963 GMC	(G)	800 GALLON		R
(4236) LIGHT PLANT 5	1977 CHEV./WELCH	(G)			W/CY
(4607) LIGHT PLANT 20	1979 CHEV./WELCH	(G)			W/CY
(4427) COMPRESSOR 12	1978 INTER./WELCH	(G)			LY
(4428) COMPRESSOR 19	1978 INTER./WELCH	(G)			LY
(2400) COMMAND POST	1966 INTERNATIONAL	(G)	WALK-IN VAN		LY
(1756) JEEP & BOAT	1951 JEEP w/ 12' alum. boat	(G)			R

---

contact/info wanted

This column has two purposes: to help members contact each other, and to help members obtain information directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members by telephone, letter, or cassette tape in a certain geographic area or with members who have similar listening interests, this is the perfect place for you to make known your interests. Remember – those who respond will do so directly, so be sure to provide your phone number, the best time to be called, or your address. Write to:

Amy Polivka, 12906 Ohio Circle, Omaha, NE 68164

BORDER CONTACT WANTED: This member wants contact for Montreal Island and metropolitan area, also contact from members close to the USA and Canada border. Many frequencies to be checked. Cassette recorder available. (11-4-83)
GILLES THIBODEAU (CAN 101), 3653 Montcalm Lac-Megantic, Quebec, Canada G6B 2H8 - (819) 583-1817 after 6 hrs. PM

NEBRASKA/IOWA MEMBERS: This member wants anyone from Nebraska and/or Iowa wishing to start an RCMA chapter to contact him. (1-27-84)
GUY A. KROGER (IA-002), 3007 9th Ave., Council Bluffs, IA 51501

J.I.L. INFO WANTED: Is considering a purchase of a new J.I.L. SX-200 Scanner, and would like to hear from any SX-200 owners about the performance of or problems with their SX-200. (3-3-84)
EUGENE KROLAK (MI-129), 173 W. Labo, Carleton, MI 48117

NORTHEASTERN U.S. INFO: This member is interested in frequencies, 10 codes, and town and area designation codes, etc. for the following areas: New Jersey N.E., to be specific, a 50+ radius of Scranton, PA, NYC metro, Long Island, Staten Island, Miwork, N.J. Is mostly interested in PD, Fire, federal, Paramedics, hospitals, etc. (3-5-84)
JOHN J. POPSON, JR. (PA-???), 528 Sanderson St., Throop, PA 18512 (717) 383-2968

ATTENTION SOUTHERN U.S.: This member needs information on how to stop interference from high voltage power lines. Also is looking for police and fire frequencies for Arkansas. (3-17-84)
JACE ENGLISH (TX-134), Rt. 2, Box 100, Ben Wheeler, TX 75754

New Member Needs Info on Antenna Reception: New to monitoring; needs to know how to obtain/improve reception in mountain area.
HARRY M. DUNN, P.O. Box 511, Big Bear Lake, CA 92315

FCC TOPICS

George DuBois, Editor

FCC news and information of interest relating to two-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

If you've been scanning for awhile, and read the electronics press, you probably remember the 1979 World Administrative Radio Conference. Attended by representatives of 150 countries in Geneva, the Conference divided up the radio spectrum for the next 20 years. Since the last conference in 1959, various regional amendments had been made and there was a need to harmonize the Radio Regulations. Many rules also needed amendment as a result of technical advances. In the preparation of the U.S. proposals, the FCC released nine Notices of Inquiry between 1975 and 1978. At the same time, the Interdepartmental Radio Advisory Committee (IRAC) prepared the requests on behalf of U.S. Government agencies. The Department of State then developed the formal proposals for presentation at the Conference. Most of the U.S. proposals were attained, in whole or in part. The Final Acts of WARC 79 became effective on Jan. 1, 1982 for those administrations that had ratified the treaty. The U.S. ratified the treaty on Sept. 6, 1983 and it now has the force of law. In the interim, the FCC released five Notices of Inquiry, the first in 1980, in preparation for the amendment of our Rules and Regulations to conform with the provisions of the treaty.

The FCC has now released the Second Report and Order amending Part 2, which contains our Table of Allocations. (The First Report and Order was released last year and concerned only the allocation of spectrum at 12 gHz for Direct Broadcast Satellite.) There are some major changes, some minor ones, all of which may lead to the eventual amendment of the Rule Parts governing the particular services involved.

First, in frequency order, the Table now contains a secondary allocation for Radio Astronomy in the private land mobile band 37.5 to 38 mHz and a primary allocation in the 38.0-38.25 mHz government band. The 38 mHz segment has been designated for years, but not in the Table, and the 37.5 mHz segment had been available internationally. At 75 mHz, the guard bands on each side of the aeronautical marker beacon frequency have been narrowed, from 400 to 200 kHz (74.8 to 75.2 mHz). The U.S. opposed this, but went along with the Conferences decision. Included in the allocation is a footnote cautioning administrations in Regions 2 and 3 from making assignments in these bands in other services until Dec., 1989, until the characteristics of airborne receivers are improved (This for the protection of aircraft with older ILS equipment).

A major change in the 136-137 mHz band. The U.S. proposed expanding the 118 to 136 mHz Aircraft band, and will do so, to 137 mHz in 1990. This will add 40 channels to the Aircraft band. Until then, the 136-137 band continues to be available on a primary basis for Satellite-Space Research. (Satellites are normally moved to other bands once they become operational anyway.)

The 216 to 220 mHz band is now available in Region 2 for Maritime use, with telemetry still permitted on a secondary basis. The Commission, of course, already reassigned the band for this use a couple of years ago (see last months column). The 220-225 mHz band used to be available to the Amateur Radio Service on a secondary basis to U.S. Government Radiolocation (radar). Now, you'll note that it is shared on an equal basis with Amateur, Fixed and Mobile services. The FCC and NTIA have plans for this band, and the hams may not like them.

In spite of its non-acceptance, the U.S. and a number of NATO countries indicated their intention to operate Mobile-Satellite systems in the 235 to 399.9 mHz band, outside the Mobile-Satellite sub-bands. Amateurs generally may no longer use the 420 to 430 mHz portion of the 420-450 mHz band near the Canadian border. This is because of the need for expansion of the 410-420 mHz band for land-mobile use in Canada. Hams never used this segment much anyway,

GOVERNMENT RADIO SYSTEMS
NORTHERN CALIFORNIA

Public Safety systems 3500 entries
Police Fire Public Works
Medical Transit Districts
Local State Federal

COMPREHENSIVELY ORGANIZED LISTINGS
7 information fields
Channel order - Tone codes
Net names Inputs/Outputs

To receive this attractive 64 page
directory postpaid send $15 to
Mobile Radio Resources
2661 Carol Drive
San Jose CA 95125

PAID ADVERTISEMENT

since it's mainly used for radiolocation in the U.S. Regarding the 470 to 806 mHz UHF TV Broadcast band, the FCC declined at this time to permit Fixed or Mobile use on a secondary basis, as permitted by the WARC. Stating that there are too many issues to be resolved in this matter, any action is being postponed. For the same reason, the Commission declined to allow Mobile-Satellite service in the 806-890 mHz band on either a primary or secondary basis, as allowed by WARC-79. The issue of a Land Mobile-Satellite service will be resolved in a separate proceeding. A secondary allocation for the Amateur Radio Service was added to the 902-928 mHz ISM, Radiolocation band, but will not be implemented at this time. The 1215 to 1240 mHz segment of the 1215-1300 mHz band was taken from the hams and re-allocated to the Radionavigation-Satellite Service, for the Navstar Global Positioning System. Also, the 2310-2390 segment of the 2300-2450 mHz band was also taken from the hams, for Aeronautical Flight test telemetry stations. This band will be available for data transmissions from both manned and unmanned craft, similar to those allowed in the shared Government/non-govt. band at 1435-1535 mHz.

The format of the Table of Allocations was also changed. Instead of columns that were previously just labeled "worldwide" and "Region 2", the lefthand side of the Table now contains three columns indicating the allocations in each region. This hemisphere is Region 2. Region 1 is Europe, Africa and most of Asia. Region 3 is Southern Asia, Australia and the South Pacific.

The middle two columns show the U.S. allocations, Government use in one, non-government in the other (or shared use in both). The primary allocation is shown in capitol letters. Secondary allocations, those that operate on a non-interference basis to the primary service(s), are in lower case letters. The two righthand columns show the non-government, FCC-allocated use. These columns used to list all the bands of frequencies in each service (Public Safety, Industrial, etc.) but now merely give the FCC Rule Part that applies and serves as a cross reference. Specific bands and frequencies are then, of course, listed in the applicable Rules. The "Special Use" column is self-explanatory, although a little puzzling. 123.1 is listed in this column, for example, but not 121.5. (Or any of the emergency frequencies.)

What follows is the 30 to 1200 mHz portion of the new Table of Allocations. It's kind of hard to read now, so I imagine when it's reduced for the newsletter it will be even harder to make out. You'll have to get out those magnifying glasses. The "NG" footnotes refer to non-government use and "G", the U.S.Government. (Not all the "G" footnotes are in the FCC Rules. They are in the similar table in the NTIA's Manual of Regulations and Procedures.) I haven't included the International footnotes, the 3-digit numbers throughout the Table. For the most part they are quite useless - stuff like different allocations in Bulgaria or what have you. Besides, they'd take another six pages to include.

§ 2.106 Table of Frequency Allocations.

International table			United States table		FCC use designators	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government	Rule part(s)	Special-use frequencies
			Allocation MHz	Allocation MHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
28.0–28.7	AMATEUR. AMATEUR-SATELLITE.		28.0–28.7	28.0–29.7 AMATEUR. AMATEUR-SATELLITE.	AMATEUR (97).	
28.7–29.005	FIXED. MOBILE.		29.7–29.89	LAND MOBILE.	PRIVATE LAND MOBILE (90).	
				29.8–29.89 FIXED.	AVIATION (87) INTERNATIONAL FIXED PUBLIC (23)	
			29.89–29.91 FIXED. MOBILE.	29.89–29.91		
			29.91–30.0	29.91–30.0 FIXED	AVIATION (87). INTERNATIONAL FIXED PUBLIC (23).	
30.005–30.01	FIXED MOBILE SPACE RESEARCH SPACE OPERATIONS (satellite identification).		30.0–30.56 MOBILE. Fixed.	30.0–30.56		
30.01–37.5	FIXED. MOBILE		30.56–32.0	30.56–32.0 LAND MOBILE. NG124	PRIVATE LAND MOBILE (90).	
			32.0–33.0 FIXED MOBILE	32.0–33.0		
			33.0–34.0	33.0–34.0 LAND MOBILE NG124	PRIVATE LAND MOBILE (90)	
			34.0–35.0 FIXED. MOBILE.	34.0–35.0		
			35.0–36.0	35.0–35.19 LAND MOBILE NG124	PRIVATE LAND MOBILE (90)	
				35.19–35.69 LAND MOBILE. NG124	DOMESTIC PUBLIC LAND MOBILE (22) PRIVATE LAND MOBILE (90).	
				35.69–36.0 LAND MOBILE. NG124	PRIVATE LAND MOBILE (90).	
			36.0–37.0 FIXED. MOBILE. US220	36.0–37.0 US220		
			37.0–37.5	37.0–37.5 LAND MOBILE. NG124	PRIVATE LAND MOBILE (90)	
37.5–38.25	FIXED. MOBILE. Radio Astronomy.		37.5–38.0 Radio Astronomy.	37.5–38.0 LAND MOBILE. Radio Astronomy. NG59 NG124	PRIVATE LAND MOBILE (90).	
			38.0–38.25 FIXED. MOBILE. RADIO ASTRONOMY. US81	38.0–38.25 RADIO ASTRONOMY. US81		
38.25–38.986	FIXED MOBILE.		38.25–39.0 FIXED MOBILE	38.25–39.0		
38.986–40.02	FIXED MOBILE Space Research.		39.0–40.0	39.0–40.0 LAND MOBILE. NG124	PRIVATE LAND MOBILE (90).	

International table			United States table		FCC use designators	
			Government	Non-Government		
Region 1—allocation kHz	Region 2—allocation kHz	Region 3—allocation kHz	Allocation kHz	Allocation kHz	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			40.0–42.0 FIXED. MOBILE. 548 US210 US220	40.0–42.0 548 US210 US220		40.68 MHz ± .02 MHz industrial, scientific and medical frequency
40.02–40.98 FIXED MOBILE. 548						
40.98–41.015 FIXED. MOBILE. Space Research. 549 550 551						
41.015–44.0 FIXED MOBILE. 549 550 551			42.0–46.6	42.0–43.19 LAND MOBILE. NG124 NG141	PRIVATE LAND MOBILE (90).	
				43.19–43.69 LAND MOBILE. NG124	DOMESTIC PUBLIC LAND MOBILE (22) PRIVATE LAND MOBILE (90)	
44.0–47.0 FIXED. MOBILE. 551 552				43.69–46.6 LAND MOBILE. NG124 NG141	PRIVATE LAND MOBILE (90).	
			46.6–47.0 FIXED MOBILE	46.6–47.0		
47.0–68.0 BROADCASTING.	47.0–50.0 FIXED MOBILE.	47.0–50.0 FIXED. MOBILE. BROADCASTING.	47.0–49.6	47.0–49.6 LAND MOBILE. NG124	PRIVATE LAND MOBILE (90).	
			49.6–50.0 FIXED MOBILE	49.6–50.0		
553 554 555 559 561	50.0–54.0 AMATEUR. 556 557 558 560		50.0–54.0	50.0–54.0 AMATEUR.	AMATEUR (97).	
	54.0–68.0 BROADCASTING. Fixed. Mobile. 562	54.0–68.0 FIXED. MOBILE. BROADCASTING.	54.0–72.0	54.0–72.0 BROADCASTING.	RADIO BROADCAST (TV) (73). Auxiliary Broadcasting (74).	
68.0–74.8 FIXED. MOBILE except aeronautical mobile. 564 565 567 568 571 572	68.0–72.0 BROADCASTING. Fixed. Mobile. 563	68.0–74.8 FIXED. MOBILE. 566 569 571 572	72.0–73.0	72.0–73.0 FIXED. MOBILE. NG3 NG49 NG56	DOMESTIC PUBLIC LAND MOBILE (22) PERSONAL (95). PRIVATE LAND MOBILE (90).	
	72.0–73.0 FIXED. MOBILE.		73.0–74.6 RADIO ASTRONOMY. 569 US74	73.0–74.6 RADIO ASTRONOMY 569 US74 NG133		
	73.0–74.6 RADIO ASTRONOMY 569 570		74.6–74.8 FIXED MOBILE 572 US273	74.6–74.8 FIXED MOBILE 572 US273		
	74.6–74.8 FIXED MOBILE 572					
74.8–75.2	AERONAUTICAL RADIONAVIGATION 572		74.8–75.2 AERONAUTICAL RADIONAVIGATION. 572	74.8–75.2 AERONAUTICAL RADIONAVIGATION 572	AVIATION (87).	75 MHZ Marker Beacon.
75.2–87.5 FIXED. MOBILE except aeronautical mobile 565 571 572 575 576	75.2–75.4 FIXED. MOBILE. 571 572		75.2–75.4 FIXED. MOBILE. 572 US273	75.2–75.4 FIXED MOBILE 572 US273		
	75.4–76.0 FIXED MOBILE	75.4–87.0 FIXED MOBILE 573 574 577 579	75.4–76.0	75.4–76.0 FIXED MOBILE NG3 NG49 NG56	DOMESTIC PUBLIC LAND MOBILE (22) PERSONAL (95) PRIVATE LAND MOBILE (90)	
	76.0–88.0 BROADCASTING Fixed Mobile		76.0–88.0	76.0–88.0 BROADCASTING NG129	RADIO BROADCAST (TV)(73) Auxiliary Broadcasting (74)	
		87.0–100.0 FIXED. MOBILE. BROADCASTING				

International table			United States table		FCC use designators	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government Allocation MHz	Non-Government Allocation MHz	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
BROADCASTING. 581 582	88–100 BROADCASTING.	580	88–108 US93	88–108 BROADCASTING. US93 NG2 NG128 NG129	RADIO BROADCAST (FM) (73). Auxiliary Broadcasting (74).	
100–108	BROADCASTING 582 583 584 585 586 587 588 589 590					
108.0–117.975	AERONAUTICAL RADIONAVIGATION.		108.0–117.975 AERONAUTICAL RADIONAVIGATION. US93	108.0–117.975 AERONAUTICAL RADIONAVIGATION. US93		
117.975–136.0	AERONAUTICAL MOBILE (R) 501 591 592 593 594		117.975–121.9375 AERONAUTICAL MOBILE (R). 501 591 592 593 US26 US28	117.975–121.9375 AERONAUTICAL MOBILE (R). 501 591 592 593 US26 US28	AVIATION (87).	
			121.9375–123.0875 591 US30 US31 US33 US80 US102 US213	121.9375–123.0875 AERONAUTICAL MOBILE 591 US30 US31 US33 US80 US102 US213	AVIATION (87).	
			123.0875–123.5875 AERONAUTICAL MOBILE US32 US33 US112	123.0875–123.5875 AERONAUTICAL MOBILE US32 US33 US112	AVIATION (87).	123.1 MHz for SAR Scene-of-Action Communication.
			123.5875–128.8125 AERONAUTICAL MOBILE (R). 591 US26	123.5875–128.8125 AERONAUTICAL MOBILE (R). 591 US26	AVIATION (87).	
			128.8125–132.0125 591	128.8125–132.0125 AERONAUTICAL MOBILE (R). 591	AVIATION (87).	
			132.0125–136.0 AERONAUTICAL MOBILE (R). 591 US26	132.0125–136.0 AERONAUTICAL MOBILE (R). 591 US26	AVIATION (87).	
136.0–137.0	AERONAUTICAL MOBILE (R). FIXED. Mobile except aeronautical mobile (R). 591 595		136.0–137.0 591 US244	136.0–137.0 AERONAUTICAL MOBILE (R). 591 US244	AVIATION (87). SATELLITE COMMUNICATIONS (25).	
137.0–138.0	SPACE OPERATION (space-to-Earth). METEOROLOGICAL-SATELLITE (space-to-Earth). SPACE RESEARCH (space-to-Earth). Fixed. Mobile except aeronautical mobile (R). 596 597 598 599		137.0–138.0 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth).	137.0–138.0 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth).	SATELLITE COMMUNICATIONS (25).	
138.0–143.6 AERONAUTICAL MOBILE (OR). 600 601 602 604	138.0–143.6 FIXED. MOBILE. /RADIOLOCATION/. Space Research (space-to-Earth).	138.0–143.6 FIXED. MOBILE. Space Research (space-to-Earth). 599 603	138.0–144.0 FIXED. MOBILE.	138.0–144.0		
143.6–143.65 AERONAUTICAL MOBILE (OR). SPACE RESEARCH (space-to-Earth). 601 602 604	143.6–143.65 FIXED. MOBILE. SPACE RESEARCH (space-to-Earth). /RADIOLOCATION/	143.6–143.65 FIXED. MOBILE. SPACE RESEARCH (space-to-Earth). 599 603				
143.65–144.0 AERONAUTICAL MOBILE (OR). 600 601 602 604	143.65–144.0 FIXED. MOBILE. /RADIOLOCATION/. Space Research (space-to-Earth).	143.65–144.0 FIXED. MOBILE. Space Research (space-to-Earth). 599 603	US10 G36	US10		
144.0–146.0	AMATEUR 510 AMATEUR-SATELLITE. 605 606		144.0–146.0 510	144.0–146.0 AMATEUR 510 AMATEUR-SATELLITE.	AMATEUR (97).	
146.0–149.9 FIXED. MOBILE except aeronautical Mobile (R).	146.0–148.0 AMATEUR. 607	146.0–148.0 AMATEUR. FIXED. MOBILE. 607	146.0–148.0	146.0–148.0 AMATEUR.	AMATEUR (97).	
608	148.0–149.9 FIXED. MOBILE. 608		148.0–149.9 FIXED. MOBILE. 608 US10 G36	148.0–149.9 608 US10	SATELLITE COMMUNICATION (25).	

International table			United States table		FCC use designators	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government		
			Allocation MHz	Allocation MHz	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
149.9–150.05	RADIONAVIGATION SATELLITE		149.9–150.05 RADIONAVIGATION SATELLITE.	149.9–150.05 RADIONAVIGATION SATELLITE.		
150.05–153.0 FIXED. MOBILE except aeronautical mobile RADIO ASTRONOMY.	150.05–156.7625 FIXED. MOBILE		150.05–150.8 FIXED MOBILE US216 G30	150.05–150.8 US216		
			150.8–156.2475	150.8–152.0 LAND MOBILE. NG51 NG112 NG124	PRIVATE LAND MOBILE (90).	
				152.0–152.255 LAND MOBILE US216	DOMESTIC PUBLIC LAND MOBILE (22)	
610 612	611 613		613 US216			
				152.255–152.495 LAND MOBILE. NG124	PRIVATE LAND MOBILE (90)	
				152.495–152.855 LAND MOBILE. NG4	DOMESTIC PUBLIC LAND MOBILE (22).	
				152.855–156.2475 LAND MOBILE. 613 NG4 NG112 NG117 NG124	PRIVATE LAND MOBILE (90) AUXILIARY BROADCASTING (74).	
153.0–154.0 FIXED MOBILE except aeronautical mobile (R) Meteorological Aids						
154.0–156.7625 FIXED MOBILE except aeronautical mobile (R) 613						
			156.2475–157.0375 613 US77 US106 US107 US266	156.2475–157.0375 MARITIME MOBILE NG117 613 US77 US106 US107 US266		
156.7625–156.8375	MARITIME MOBILE (distress and calling) 501 613					
156.8375–174.0 FIXED. MOBILE except aeronautical mobile	156.8375–174.0 FIXED MOBILE.					
613 614 615	613 616 617 618		157.0375–157.1875 MARITIME MOBILE 613 US214 US266 G109	157.0375–157.1875 613 US214 US266	Private Land Mobile (90)	
			157.1875–157.45 613 US223 US266	157.1875–157.45 MARITIME MOBILE 613 US223 US266 NG111	MARITIME (81 and 83)	
			157.45–161.575	157.45–157.755 LAND MOBILE. 613 US266 NG111 NG124	PRIVATE LAND MOBILE (90)	
				157.755–158.115 LAND MOBILE	DOMESTIC PUBLIC LAND MOBILE (22)	
				158.115–161.575 LAND MOBILE NG6	DOMESTIC PUBLIC LAND MOBILE (22). PRIVATE LAND MOBILE (90).	
			613 US266	613 NG6 NG28 NG70 NG112 NG124		
			161.575–161.625 613 US77	161.575–161.625 MARITIME MOBILE. 613 US77 NG6 NG17	DOMESTIC PUBLIC LAND MOBILE (22). MARITIME (81 and 83)	
			161.625–161.775 613	161.625–161.775 LAND MOBILE. 613 NG6	AUXILIARY BROADCASTING (74). DOMESTIC PUBLIC LAND MOBILE (22)	

International table			United States table		FCC use designators	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government	Rule part(s)	Special-use frequencies
			Allocation MHz	Allocation MHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			161.775–162.0125 613 US266	161.775–162.0125 MARITIME MOBILE. 613 US266 NG6	DOMESTIC PUBLIC LAND MOBILE (22) MARITIME (81 and 83).	
			162.0125–173.2 FIXED. MOBILE. 613 US8 US11 US13 US216 US223. G5	162.0125–173.2 613 US8 US11 US13 US216 US223.	Auxiliary Broadcasting (74). Private Land Mobile (90).	
			173.2–173.4	173.2–173.4 FIXED Land Mobile. NG124	Private Land Mobile (90).	
			173.4–174.0 FIXED MOBILE G5	173.4–174.0		
174–233 BROADCASTING.	174–216 BROADCASTING. Fixed. Mobile. 620	174–233 FIXED. MOBILE BROADCASTING.	174–216	174–216 BROADCASTING. NG115	RADIO BROADCAST (TV) (73). Auxiliary Broadcasting (74).	
621 623 626 629	216–220 FIXED MARITIME MOBILE. Radiolocation 627	619 624 625 626 630	216–220 MARITIME MOBILE. Aeronautical Mobile. Fixed. Land Mobile. Radiolocation 627 US210 US229 US274 G2	216–220 MARITIME MOBILE. Aeronautical Mobile. Fixed. Land Mobile. 627 US210 US229 US274 NG121	MARITIME (81 and 83). Private Land Mobile (90).	
	220–225 AMATEUR. FIXED MOBILE. Radiolocation 627		220–225 FIXED MOBILE. Radiolocation 627	220–225 AMATEUR. FIXED MOBILE.	AMATEUR (97).	
223–230 BROADCASTING Fixed Mobile.		223–230 FIXED.	Fixed.		MOBILE.	Mobile.
622 628 629 631 632 633 634 635.	225–235 FIXED. MOBILE.	636 637	225.0–328.6 FIXED MOBILE. G30 G100	225.0–328.6		
230–235 FIXED. MOBILE.		230–235 FIXED. MOBILE.				
235–267	FIXED MOBILE 501 592 635 640 641 642					
267–272	FIXED MOBILE Space Operation (space to-Earth) 641 643					
272–273	SPACE OPERATION (space-to-Earth) FIXED MOBILE. 641					
273–322	FIXED MOBILE. 641					
322.0–328.6	FIXED. MOBILE RADIO ASTRONOMY 644					
328.6–335.4	AERONAUTICAL RADIONAVIGATION. 645		328.6–335.4 AERONAUTICAL RADIONAVIGATION. 645	328.6–335.4 AERONAUTICAL RADIONAVIGATION. 645		
335.4–399.9	FIXED MOBILE. 641		335.4–399.9 FIXED. MOBILE. G30 G100	335.4–399.9		
399.9–400.05	RADIONAVIGATION-SATELLITE. 609		399.9–400.05 RADIONAVIGATION-SATELLITE.	399.9–400.05 RADIONAVIGATION-SATELLITE.		
400.05–400.15	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz) 646 647		400.05–400.15 STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE. 646	400.05–400.15 STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE. 646		400.1 MHz Standard frequency.

International table			United States table		FCC use designators	
			Government	Non-Government		
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Allocation MHz	Allocation MHz	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	(4)	(5)	(6)	(7)
400.15–401.0	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Space Operation (space-to-Earth) 647		400.15–401.0 METEOROLOGICAL AIDS (radiosonde) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Space Operation (space-to-Earth) US70	400.15–401.0 METEOROLOGICAL AIDS (radiosonde) SPACE RESEARCH (space-to-Earth) Space Operation (space-to-Earth) US70	SATELLITE COMMUNICATION (25)	
401–402	METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space) Mobile except aeronautical mobile		401–402 METEOROLOGICAL AIDS (radiosonde) SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Meteorological-Satellite (Earth-to-space) US70	401–402 METEOROLOGICAL AIDS (radiosonde) SPACE OPERATION (space-to-Earth) Earth Exploration-Satellite (Earth-to-space) Meteorological-Satellite (Earth-to-space) US70	SATELLITE COMMUNICATIONS (25)	
402–403	METEOROLOGICAL AIDS Earth Exploration-Satellite (Earth-to-space) Fixed Meteorological-Satellite (Earth-to-space). Mobile except aeronautical mobile		402–403 METEOROLOGICAL AIDS (radiosonde) Earth Exploration-Satellite (Earth-to-space) Meteorological-Satellite (Earth-to-space) US70	402–403 METEOROLOGICAL AIDS (radiosonde) Earth Exploration-Satellite (Earth-to-space) Meteorological-Satellite (Earth-to-space). US70		
403–406	METEOROLOGICAL AIDS. Fixed. Mobile except aeronautical mobile. 648		403–406 METEOROLOGICAL AIDS (radiosonde). US70 G6	403–406 METEOROLOGICAL AIDS (radiosonde). US70		
406.0–406.1	MOBILE-SATELLITE (Earth-to-space). 649		406.0–406.1 MOBILE-SATELLITE (Earth-to-space). 649	406.0–406.1 MOBILE-SATELLITE (Earth-to-space). 649		
406.1–410.0	FIXED MOBILE except aeronautical mobile. RADIO ASTRONOMY. 648 650		406.1–410.0 FIXED MOBILE. RADIO ASTRONOMY US13 US74 US117 G5 G6	406.1–410.0 RADIO ASTRONOMY US13 US74 US117		
410–420	FIXED. MOBILE except aeronautical mobile.		410–420 FIXED. MOBILE. US13 G5	410–420 US13		
420–430	FIXED. MOBILE except aeronautical mobile. Radiolocation. 651 652 653		420–450 RADIOLOCATION. 664 665 US7 US87 US217 US228 G2 G6 G105	420–450 Amateur 664 668 US7 US87 US217 US228 NG135	Amateur (97).	
430–440 AMATEUR. RADIOLOCATION.	430–440 RADIOLOCATION. Amateur					
440–450	FIXED MOBILE except aeronautical mobile. Radiolocation 651 652 653 666 667 668					
450–460	FIXED. MOBILE. 653 668 669 670		450–460 668 669 670 US87 G105	450–451 LAND MOBILE 668 US87	AUXILIARY BROADCASTING (74). SATELLITE COMMUNICATION (25)	
				451–454 LAND MOBILE NG112 NG124	PRIVATE LAND MOBILE (90).	
				454–455 LAND MOBILE NG12 NG112	DOMESTIC PUBLIC LAND MOBILE (22).	
				455–456 LAND MOBILE.	AUXILIARY BROADCASTING (74).	

International table			United States table		FCC use designations	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government	Rule part(s)	Special-use frequencies
			Allocation MHz	Allocation MHz		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
				456–459 LAND MOBILE. 669 670 NG112 NG124	PRIVATE LAND MOBILE (90).	
				459–460 LAND MOBILE NG12 NG112	DOMESTIC PUBLIC LAND MOBILE (22).	
460–470	FIXED. MOBILE. Meterological-Satellite (space-to-Earth)		460–470 Meterological Satellite (space-to-Earth).	460–462.5375 LAND MOBILE. 671 US201 US209 NG124	PRIVATE LAND MOBILE (90).	
			669 670 671 US201 US209 US216	462.5375–462.7375 LAND MOBILE. 671 US201	PERSONAL (95).	
				462.7375–467.5375 LAND MOBILE. 669 671 US201 US209 US216 NG124	PRIVATE LAND MOBILE (90)	
				467.5375–467.7375 LAND MOBILE. 669 671 US201	PERSONAL (95).	
				467.7375–470.0 LAND MOBILE. 669 670 671 US201 US216 NG124	PRIVATE LAND MOBILE (90).	
470–790 BROADCASTING.	470–512 BROADCASTING. Fixed. Mobile.	470–585 FIXED. MOBILE. BROADCASTING 673 677 679	470–512	470–512 BROADCASTING LAND MOBILE. NG66 NG114 NG127	RADIO BROADCAST (TV) (73). DOMESTIC PUBLIC LAND MOBILE (22). PRIVATE LAND MOBILE (90) Auxiliary Broadcasting (74).	
	512–608 BROADCASTING.	585–610 FIXED MOBILE. BROADCASTING RADIONAVIGATION 688 689 690	512–608	512–608 BROADCASTING	RADIO BROADCAST (TV) (73) Auxiliary Broadcasting (74).	
	608–614 RADIO ASTRONOMY Mobile-Satellite except aeronautical mobile-satellite (Earth-to-space)	610–890 FIXED MOBILE. BROADCASTING.	608–614 RADIO ASTRONOMY. US74 US246	608–614 RADIO ASTRONOMY US74 US246		
790–862 FIXED BROADCASTING	614–806 BROADCASTING. Fixed. Mobile		614–806 DBROADCASTING	614–806 RADIO BROADCAST (TV) (73). Auxiliary Broadcasting (74). NG30 NG43		
862–890 FIXED MOBILE except aeronautical mobile. BROADCASTING 703	806–890 FIXED MOBILE BROADCASTING.		806–902 US116 US267 G2	806–821 LAND MOBILE NG30 NG43 NG63	PRIVATE LAND MOBILE (90)	
				821–825 LAND MOBILE NG30 NG43 NG63	Reserve.	
				825–845 LAND MOBILE. NG30 NG43 NG63	DOMESTIC PUBLIC LAND MOBILE (22).	
				845–851 LAND MOBILE. NG30 NG63	Reserve.	
				851–866 LAND MOBILE NG30 NG63	PRIVATE LAND MOBILE (90).	

International table			United States table		FCC use designations	
Region 1—allocation MHz	Region 2—allocation MHz	Region 3—allocation MHz	Government	Non-Government	Rule part(s)	Special-use frequencies
(1)	(2)	(3)	Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
				866–870 LAND MOBILE NG30 NG63	Reserve	
				870–890 LAND MOBILE NG30 NG63	DOMESTIC PUBLIC LAND MOBILE (22).	
890–942 FIXED. MOBILE except aeronautical mobile. BROADCASTING 703. Radiolocation. 704	890–902 FIXED. MOBILE except aeronautical mobile. Radiolocation. 705	890–942 FIXED. MOBILE. BROADCASTING. Radiolocation. 706		890–902 LAND MOBILE. US116 US268	Reserve.	
	902–928 FIXED. Amateur. Mobile except aeronautical mobile. Radiolocation. 705 707		902–928 RADIOLOCATION. 707 US215 US218 US267 US275 G11 G59	902–928 707 US215 US218 US267 US275	Amateur (97).	915 ± 13 MHz: Industrial, scientific and medical frequency
	928–942 FIXED. MOBILE except aeronautical mobile. Radiolocation. 705		928–947 US116 US215 US268 G2	928–929 FIXED. US116 US215 US268	DOMESTIC PUBLIC LAND MOBILE (22) PRIVATE LAND MOBILE (90). PRIVATE OPERATIONAL FIXED MICROWAVE (94).	
				929–932 LAND MOBILE. US116 US215 US268	DOMESTIC PUBLIC LAND MOBILE (22). PRIVATE LAND MOBILE (90).	
				932–947 LAND MOBILE. US116 US215 US268 NG64	Reserve.	
942–960 FIXED. MOBILE except aeronautical mobile. BROADCASTING 703 699 704	942–960 FIXED. Mobile. 706	942–960 FIXED. MOBILE. BROADCASTING. 701	947–960	947–960 FIXED	AUXILIARY BROADCASTING (74). DOMESTIC PUBLIC LAND MOBILE (22) INTERNATIONAL FIXED PUBLIC (23). PRIVATE OPERATIONAL FIXED MICROWAVE (94)	
960–1215	AERONAUTICAL RADIONAVIGATION 709		960–1215 AERONAUTICAL RADIONAVIGATION. 709 US224	960–1215 AERONAUTICAL RADIONAVIGATION 709 US224	AVIATION (87).	
1215–1240	RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 710. 711 712 713		1215–1240 RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) 713 G56	1215–1240 713		
1240–1260	RADIOLOCATION. RADIONAVIGATION-SATELLITE (space-to-Earth) 710. Amateur. 711 712 713 714		1240–1300 RADIOLOCATION.	1240–1300 Amateur.	Amateur (97).	
1260–1300	RADIOLOCATION Amateur 664 711 712 713 714		664 713 714 G56	664 713 714		

US8 The use of the frequencies 170.475, 171.425, 171.575, and 172.275 MHz east of the Mississippi River, and 170.425, 170.575, 171.475, 172.225 and 172.375 MHz west of the Mississippi River may be authorized to fixed, land and mobile stations operated by non-Federal forest firefighting agencies. In addition, land stations and mobile stations operated by non-Federal conservation agencies, for mobile relay operation only, may be authorized to use the frequency 172.275 MHz east of the Mississippi River and the frequency 171.475 MHz west of the Mississippi River. The use of any of the foregoing nine frequencies shall be on the condition that no harmful interference will be caused to Government stations.

US10 The use of the frequencies 26.62, 143.90 and 148.15 MHz may be authorized to Civil Air Patrol land stations and Civil Air Patrol mobile stations.

US11 The use of the frequencies 166.250 and 170.150 MHz may be authorized to non-Government remote pickup broadcast base and land mobile stations and to non-Government base, fixed and land mobile stations in the public safety radio services

US13 For the specific purpose of transmitting hydrological and meteorological data in co-operation with agencies of the Federal Government, the following frequencies may be authorized to non-Government fixed stations on the condition that harmful interference will not be caused to Government stations.

MHz		
169.425	171.025	406.125
169.450	171.050	406.175
169.475	171.075	409.675
169.500	171.100	409.725
169.525	171.125	412.625
170.225	171.825	412.675
170.250	171.850	412.725
170.275	171.875	412.775
170.300	171.900	
170.325	171.925	

Licensees holding a valid authorization on June 11, 1962, to operate on the frequencies 169.575, 170.375 or 171.975 MHz, may continue to be authorized for such operations on the condition that harmful interference will not be caused to Government stations.

US26 The bands 117.975–121.4125 MHz, 123.5875–128.8125 MHz and 132.0125–136.0 MHz are for air traffic control communications.

US28 The band 121.5875–121.9375 MHz is for use by aeronautical utility land and mobile stations, and for air traffic control communications.

US30 The band 121.9375–123.0875 MHz is available to FAA aircraft for communications pursuant to flight inspection functions in accordance with the Federal Aviation Act of 1958.

US31 Except as provided below the band 121.9375–123.0875 MHz is for use by private aircraft stations.

The frequencies 122.700, 122.725, 122.750, 122.800, 122.950, 122.975, 123.000, 123.050 and 123.075 MHz may be assigned to aeronautical advisory stations. In addition, at landing areas having a part-time or no airdrome control tower or FAA flight service station, these frequencies may be assigned on a secondary non-interference basis to aeronautical utility mobile stations, and may be used by FAA ground vehicles for safety related communications during inspections conducted at such landing areas.

The frequencies 122.850, 122.900 and 122.925 MHz may be assigned to aeronautical multicom stations. In addition, 122.850 MHz may be assigned on a secondary noninterference basis to aeronautical utility mobile stations. In case of 122.925 MHz, US213 applies.

Air carrier aircraft stations may use 122.000 and 122.050 MHz for communication with aeronautical stations of the Federal Aviation Administration and 122.700, 122.800, 122.900 and 123.000 MHz for communications with aeronautical stations pertaining to safety of flight with and in the vicinity of landing areas not served by a control tower.

Frequencies in the band 121.9375–122.6875 MHz may be used by aeronautical stations of the Federal Aviation Administration for communication with private aircraft stations only, except that 122.000 and 122.050 MHz may also be used for communication with air carrier aircraft stations concerning weather information.

US32 Except for the frequencies 123.3 and 123.5 MHz, which are not authorized for Government use, the band 123.1125–123.5875 MHz is available for FAA communications incident to flight test and inspection activities pertinent to aircraft and facility certification on a secondary noninterference basis.

US33 The band 123.1125–123.5875 MHz is for use by flight test and aviation instructional stations. The frequency 121.950 MHz is available for aviation instructional stations.

US70 The meteorological aids service allocation in the band 400.15–406.0 MHz does not preclude the operation therein of associated ground transmitters.

US74 In the bands 25.55–25.67, 73.0–74.6, 406.1–410.0, 608–614, 1400–1427, 1660.5–1670.0, 2690–2700 and 4990–5000 MHz and in the bands 10.68–10.7, 15.35–15.4, 23.6–24.0, 31.3–31.5, 86–92, 105–116 and 217–231 GHz, the radio astronomy service shall be protected from extraband radiation only to the extent that such radiation exceeds the level which would be present if the offending station were operating in compliance with the technical standards or criteria applicable to the service in which it operates.

US77 Government stations may also be authorized:

(a) Port operations use on a simplex basis by coast and ship stations of the frequencies 156.6 and 156.7 MHz;

(b) Duplex port operations use of the frequency 157.0 MHz for ship stations and 161.6 MHz for coast stations;

(c) Inter-ship use of 156.3 MHz on a simplex basis; and

(d) Vessel traffic services under the control of the U.S. Coast Guard on a simplex basis by coast and ship stations on the frequencies 156.25, 156.55, 156.6 and 156.7 MHz.

(e) Navigational bridge-to-bridge and navigational communications on a simplex basis by coast and ship stations on the frequencies 156.375 and 156.65 MHz.

US78 In the band 1435—1535 MHz, the frequencies between 1435 and 1485 MHz will be assigned primarily for the flight testing of manned aircraft, or major components thereof; the frequencies between 1485 and 1535 MHz will be assigned primarily for the flight testing of unmanned aircraft and missiles or major components thereof. Included as permissible usage for aeronautical telemetering stations in the band 1435—1535 MHz is telemetry associated with launching and re-entry into the earth's atmosphere, as well as any incidental orbiting prior to re-entry, of manned or unmanned objects undergoing flight tests. In the band 1530—1535 MHz the maritime mobile-satellite service will be the only primary service after 1 January 1990.

US80 Government stations may use the frequency 122.9 MHz subject to the following conditions:

(a) All operations by Government stations shall be restricted to the purpose for which the frequency is authorized to non-Government stations, and shall be in accordance with the appropriate provisions of the Commission's Rules and Regulations, Part 87, Aviation Services;

(b) Use of the frequency is required for coordination of activities with Commission licensees operating on this frequency; and

(c) Government stations will not be authorized for operation at fixed locations.

US81 The band 38.0—38.25 MHz is used by both Government and non-Government radio astronomy observatories. No new fixed or mobile assignments are to be made and Government stations in the band 38.0—38.25 MHz will be moved to other bands on a case-by-case basis, as required, to protect radio astronomy observations from harmful interference. As an exception, however, low powered military transportable and mobile stations used for tactical and training purposes will continue to use the band. To the extent practicable, the latter operations will be adjusted to relieve such interference as may be caused to radio astronomy observations. In the event of harmful interference from such local operations, radio astronomy observatories may contact local military commands directly, with a view to effecting relief. A list of military commands, areas of coordination, and points of contact for purposes of relieving interference may be obtained upon request from the Office of the Chief Scientist, Federal Communications Commission, Washington, D.C. 20554.

US87 The frequency 450 MHz, with maximum emission bandwidth of 500 kHz, may be used by Government and non-Government stations for space telecommand at specific locations, subject to such conditions as may be applied on a case-by-case basis.

US93 In the conterminous United States, the frequency 108.0 MHz may be authorized for use by VOR test facilities, the operation of which is not essential for the safety of life or property, subject to the condition that no interference is caused to the reception of FM broadcasting stations operating in the band 88—108 MHz. In the event that such interference does occur, the licensee or other agency authorized to operate the facility shall discontinue operation on 108 MHz and shall not resume operation until the interference has been eliminated or the complaint otherwise satisfied. VOR test facilities operating on 108 MHz will not be protected against interference caused by FM broadcasting stations operating in the band 88—108 MHz nor shall the authorization of a VOR test facility on 108 MHz preclude the Commission from authorizing additional FM broadcasting stations.

US102 In Alaska only, the frequency 122.1 MHz may also be used for air carrier air traffic control purposes at locations where other frequencies are not available to air carrier aircraft stations for air traffic control.

US106 The frequency 156.75 MHz is available for assignment to non-Government and Government stations for environmental communications in accordance with an agreed plan.

US107 The frequency 156.8 MHz is the national distress, safety and calling frequency for the maritime mobile VHF radiotelephone service for use by Government and non-Government ship and coast stations. Guard bands of 156.7625—156.7875 and 156.8125—156.8375 MHz are maintained.

US112 The frequency 123.1 MHz is for search and rescue communications. This frequency may be assigned for air traffic control communications at special aeronautical events on the condition that no harmful interference is caused to search and rescue communications during any period of search and rescue operations in the licale involved.

US116 In the bands 890–902 and 928–942 MHz, no new assignments are to be made to Government radio stations after July 10, 1970, except, on a case-by-case basis, to experimental stations and to additional stations of existing networks in Alaska. Government assignments, existing prior to July 10, 1970, to stations in Alaska may be continued. All other existing Government assignments shall be on a secondary basis to stations in the non-Government land mobile service and shall be subject to adjustment or removal from the bands 890–902 and 928–942 MHz at the request of the FCC.

US117 In the band 406.1–410 MHz, all new authorizations will be limited to a maximum 7 watts per kHz of necessary bandwidth; existing authorizations as of November 30, 1970 exceeding this power are permitted to continue in use.

New authorizations in this band stations, other than mobile stations, within the following areas are subject to prior coordination by the applicant through the Electromagnetic Spectrum Management Unit, National Science Foundation, Washington, D.C. 20550. (202–357–9696):

US201 In the band 460–470 MHz, space stations in the earth exploration-satellite service may be authorized for space-to-earth transmissions on a secondary basis with respect to the fixed and mobile services. When operating in the meteorological-satellite service, such stations shall be protected from harmful interference from other applications of the earth exploration-satellite service. The power flux produced at the earth's surface by any space station in this band shall not exceed −152 dBW/m² in any 4 kHz.

US209 The use of frequencies 460.6625, 460.6875, 460.7125, 460.7375, 460.7625, 460.7875, 460.8125, 460.8375, 460.8625, 465.6625, 465.6875, 465.7125, 465.7375, 465.7625, 465.7875, 465.8125, 465.8375, and 465.8625 MHz may be authorized, with 100 mW or less output power, to Government and non-Government radio stations for one-way, non-voice bio-medical telemetry operations in hospitals, or medical or convalescent centers.

US210 Use of frequencies in the bands 40.66–40.70 and 216–220 MHz may be authorized to Government and non-Government stations on a secondary basis for the tracking of, and telemetering of scientific data from, ocean buoys and wildlife. Airborne wildlife telemetry in the 216–220 MHz band will be limited to the 216.0–216.1 MHz portion of the band. Operation in these two bands is subject to the technical standards specified in: (a) Section 8.2.42 of the NTIA Manual for Government use, or (b) Section 5.108 of the Commission's Rules for non-Government use.

US213 The frequency 122.925 MHz is for use only for communications with or between aircraft when coordinating natural resources programs of Federal or State natural resources, agencies, including forestry management and fire suppression, fish and game management and protection and environmental monitoring and protection.

US214 The frequency 157.1 MHz is the primary frequency for liaison communications between ship stations and stations of the United States Coast Guard.

US215 Emissions from microwave ovens manufactured on and after January 1, 1980, for operation on the frequency 915 MHz must be confined within the band 902–928 MHz. Emissions from microwave ovens manufactured prior to January 1, 1980, for operation on the frequency 915 MHz must be confined within the band 902–940 MHz. Radiocommunications services operating in the band 928–940 MHz must accept any harmful interference from the operation of microwave ovens manufactured before January 1, 1980.

US216 The frequencies 150.775 and 150.790, and the bands 152–152.0150, 163.2375–163.2625, 462.9375–463.1875 and 467.9375–468.1875 MHz are authorized for Government/non-Government operations in medical radio communications systems.

US217 Pulse-ranging radiolocation systems may be authorized for Government and non-Government use in the 420–450 MHz band along the shorelines of Alaska and the contiguous 48 states. Spread spectrum radiolocation systems may be authorized in the 420–435 MHz portion of the band for operation within the contiguous 48 States and Alaska. Authorizations will be granted on a case-by-case basis; however, operations proposed to be located within the zones set forth in US228 should not expect to be accommodated. All stations operating in accordance with this provision will be secondary to stations operating in accordance with the Table of Frequency Allocations.

US218 The bans segments 902–912 MHz and 918–923 MHz are available for Automatic Vehicle Monitoring (AVM) Systems subject to not causing harmful interference to the operation of Government stations authorized in these bands. These systems must tolerate any interference from the operation of industrial, scientific, and medical (ISM) devices and the operation of Government stations authorized in these bands.

US228 The frequencies 36.25 and 41.71 MHz may be authorized to Government stations and non-Government stations in the petroleum radio service, for oil spill containment and cleanup operations. The use of these frequencies for oil spill containment or cleanup operations is limited to the inland and coastal waterway regions.

US221 Use of the mobile service in the bands 525–535 kHz and 1605–1615 kHz is limited to distribution of public service information from travelers information stations operating on 530 or 1610 kHz.

US223 Within 75 miles of the United States/Canada border on the Great Lakes and Saint Lawreace Seaway, use of coast transmit frequency 162.025 MHz and ship station transmit frequency 157.425 MHz (VHF maritime mobile service channel 88) may be authorized for use by the maritime mobile service for public correspondance.

US224 Government systems utilizing spread spectrum techniques for terrestrial communication, navigation and identification may be authorized to operate in the band 960–1215 MHz on the condition that harmful interference will not be caused to the aeronautical radionavigation service. These systems will be handled on a case-by-case basis. Such systems shall be subject to a review at the national level for operational requirements and electromagnetic compatibility prior to development, procurement or modification.

US243 In the band 220–225 MHz, stations in the radiolocation service have priority until 1 January 1990.

US244 Until 1 January 1990, the band 136–137 MHz is allocated as an alternative allocation to the space operation (space-to-earth), meteorological-satellite service (space-to-earth) and the space research service (space-to-earth) on a primary basis. After 1 January 1990, no new assignments will be made to the above space services and existing stations will become secondary to the aeronautical mobile (R) service stations as the latter service is introduced in the band.

US245 The fixed-satellite service is limited to international inter-continental systems and subject to case-by-case electromagnetic compatibility analysis.

US246 No stations will be authorized to transmit in the bands 608–614 MHz, 1400–1427 MHz, 1660.5–1668.4 MHz, 2690–2700 MHz, 4990–5000 MHz, 10.68–10.70 GHz, 15.35–15.40 GHz, 23.6–24.0 GHz, 31.3–31.8 GHz, 51.4–54.25 GHz, 58.2–59.0 GHz, 64–65 GHz, 86–92 GHz, 100–102 GHz, 105–116 GHz, 164–168 GHz, 182–185 GHz and 217–231 GHz.

US266 Licensees in the public safety radio services holding a valid authorization on June 30, 1958, to operate in the frequency band 156.27–157.47 MHz or on the frequencies 161.85, 161.91 or 161.97 MHz may, upon proper application, continue to be authorized for such operation, including expansion of existing systems, until such time as harmful interference is caused to the operation of any authorized station other than those licensed in the public safety radio service.

US267 In the band 902–928 MHz, amateur radio stations shall not operate within the States of Colorado and Wyoming, bounded by the area of: latitude 39°N. to 42°N. and longitude 103°W. to 108°W.

US268 The bands 890–902 MHz and 928–942 MHz are also allocated to the radiolocation service for Government ship stations (off-shore ocean areas) on the condition that harmful interference is not caused to non-Government land mobile stations. The provisions of footnote US116 apply.

US273 In the 74.6–74.8 MHz and 75.2–75.4 MHz bands stations in the fixed and mobile services are limited to a maximum power of 1 watt from the transmitter into the antenna transmission line.

US274 In the 216–220 MHz band fixed, aeronautical mobile and land mobile stations are limited to telemetering and associated telecommand operations.

US275 The band 902–928 MHz is allocated on a secondary basis to the amateur service subject to not causing harmful interference to the operations of Government stations authorized in this band or to Automatic Vehicle Monitoring (AVM) systems. Stations in the amateur service must tolerate any interference from the operations of industrial, scientific and medical (ISM) devices, AVM systems and the operations of Government stations authorized in this band.

US276 Use of the band 2310–2390 MHz by the mobile service is limited to aeronautical telemetering and associated telecommand operations for flight testing of manned or unmanned aircraft, missiles, or major components thereof. Exceptionally all other mobile telemetering uses shall be secondary.

US294 In the spectrum below 490 kHz electric utilities operate Power Line Carrier (PLC) systems on power transmission lines for communications important to the reliability and security of electric service to the public. These PLC systems operate under the provisions of Part 15 of the Federal Communications Commission's Rules and Regulations or Chapter 7 of the National Telecommunications and Information Administration's Manual of Regulations and Procedures for Federal Radio Frequency Management, on an unprotected and noninterference basis with respect to authorized radio users. Notification of intent to place new or revised radio frequency assignments or PLC frequency uses in the bands below 490 kHz is to be made in accordance with the Rules and Regulations of the FCC and NTIA, and users are urged to minimize potential interference to the degree practicable. This footnote does not provide any allocation status to PLC radio frequency uses.

US296 In the bands designated for Ship wideband telegraphy, facsimile and special transmission systems, the following assignable frequencies are available to non-Government stations on a shared basis with Government stations: 2070.5, 2072.5, 2074.5, 2076.5, 4160.6, 4168, 6238.6, 6242.6, 8326, 8341.5, 12485, 12489, 16654, 16658, 22186 and 22190 kHz.

US298 Channels 27555, 27615, 27635, 27655, 27765, and 27880 kHz are available to eligibles in the Forest Products Radio Service on a secondary basis to Government operations including experimental stations. Operations in the Forest Products Radio Service on these channels will not exceed 150 watts and are limited to the states of Washington, Oregon, Maine, North Carolina, South Carolina, Tennessee, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas (eastern portion).

Non-Government Footnotes

(These footnotes, each consisting of the letters "NG" followed by one or more digits, denote stipulations applicable only to the non-Government.)

NG2 Facsimile broadcasting stations may be authorized in the band 88–108 MHz.

NG3 Control stations in the domestic public mobile radio service may be authorized frequencies in the band 72–73 and 75.4–76 MHz on the condition that harmful interference will not be caused to operational fixed stations.

NG4 The use of the frequencies in the band 152.84–153.38 MHz may be authorized, in any area, to remote pickup broadcast base and mobile stations on the condition that harmful interference will not be caused to stations operating in accordance with the Table of Frequency Allocations.

NG6 Stations in the public safety radio services authorized as of June 30, 1958, to use frequencies in the band 159.51–161.79 MHz in areas other than Puerto Rico and the Virgin Islands may continue such operation, including expansion of existing systems, on the condition that harmful interference will not be caused to stations in the services to which these bands are allocated. In Puerto Rico and the Virgin Islands this authority is limited to frequencies in the band 160.05–161.37 MHz. No new public radio service system will be authorized to operate on these frequencies.

NG12 Frequencies in the bands 454.40–455 MHz and 459.40–460 MHz may be assigned to domestic public land and mobile stations to provide a two-way air-ground public radiotelephone service.

NG19 Fixed stations associated with the maritime mobile service may be authorized, for purposes of communication with coast stations, to use frequencies assignable to ship stations in this band on the condition that harmful interference will not be caused to services operating in accordance with the Table of Frequency Allocations.

NG42 Non-Government stations in the radiolocation service shall not cause harmful interference to the amateur service.

NG49 The following frequencies may be authorized on a secondary basis for low-power (1 watt input) mobile operations in the Manufacturers Radio Service subject to the condition that no interference is caused to the reception of television stations operation on channels 4 and 5 and that their use is limited to a manufacturing facility:

MHz		
72.02	72.16	72.30
72.04	72.18	72.32
72.06	72.20	72.34
72.08	72.22	72.36
72.10	72.24	72.38
72.12	72.26	72.40
72.14	72.28	

Further, the following frequencies may be authorized on a primary basis for mobile operations in the Special Industrial Radio Service, Manufacturers Radio Service, and Railroad Radio Service subject to the condition that no interference is caused to the reception of television stations operating on channels 4 and 5; and that their use is limited to a railroad yard, manufacturing plant, or similar industrial facility.

MHz		
72.44	72.60	75.56
72.48	75.44	75.60
72.52	75.48	
72.56	75.52	

NG51 In Puerto Rico and the Virgin Islands only, the bands 150.8–150.98 MHz and 150.98–151.49 MHz are allocated exclusively to the business radio service.

NG56 In the bands 72.0–73.0 and 75.4–76.0 MHz, the use of mobile radio remote control of models is on a secondary basis to all other fixed and mobile operations. Such operations are subject to the condition that interference will not be caused to common carrier domestic public stations, to remote control of industrial equipment operating in the 72–76 MHz band, or to the reception of television signal on channels 4 (66–72 MHz) or 5 (76–82 MHz). Television interference shall be considered to occur whenever reception of regularly used television signals is impaired or destroyed, regardless of the strength of the television signal or the distance to the television station.

NG59 The frequencies 37.60 and 37.85 MHz may be authorized only for use by base, mobile, and operational fixed stations participating in an interconnected or coordinated power service utility system.

NG63 Television Broadcast translator stations holding valid licenses on November 15, 1971, to operate in the frequency band 806–890 MHz (channels 70–83), may continue to operate in this band, pursuant to periodic license renewals, on a secondary basis to the land mobile radio service.

NG64 Broadcast auxiliary stations licensed as of July 10, 1970, to operate in the frequency band 942–947 MHz may continue to so operate pending a decision as to their disposition through a future rule making proceeding.

NG66 The frequency band 470–512 MHz is allocated for use in the broadcasting and land mobile radio services. In the land mobile services it is available for assignment in the domestic public, public safety, industrial, and land transportation radio services at, or in the vicinity of 13 urbanized areas of the United States, as set forth in the table below, and subject to the standards and conditions set forth in Parts 22 and 90 of this chapter, CFR 47.

Urbanized area	TV channel
New York-Northeastern New Jersey	14, 15
Los Angeles	14, 20
Chicago-Northwestern Indiana	14, 15
Philadelphia, Pa.-New Jersey	19, 20
Detroit, Michigan	15, 16
San Francisco-Oakland, California	16, 17
Boston, Mass	14, 16
Washington, D.C.-Maryland-Virginia	17, 18
Pittsburgh, Pa.	14, 18
Cleveland, Ohio	14, 15
Miami, Florida	14
Houston, Texas	17
Dallas, Texas	16

NG70 In Puerto Rico and the Virgin Islands only, the bands 159.240–159.435 and 160.410–160.620 MHz are also available for assignment to base stations and mobile stations in the special industrial radio service.

NG111 The band 157.4375–157.4625 MHz may be used for one way paging operations in the special emergency radio service.

NG112 The frequencies 25.04, 25.08, 150.980, 154.585, 158.445, 159.480, 454.000 and 459.000 MHz may be authorized to stations in the petroleum radio service for use primarily in oil spill containment and cleanup operations and secondarily in regular land mobile communication.

NG114 In the offshore Louisiana gulf coast area, the band 488–494 MHz (TV Channel 17) is allocated to the domestic public and industrial radio services in accordance with the regulation set forth in Part 22 and 90, respectively.

NG115 In the 174 to 216 MHz band wireless microphones may be authorized to operate on a secondary, non-interfering basis, subject to terms and conditions set forth in Part 74 of these Rules and Regulations.

NG117 The frequency 156.050 and 156.175 MHz may be assigned to stations in the maritime mobile service for commercial and port operations in the New Orleans Vessel Traffic Service (VTS) area and the frequency 156.250 MHz may be assigned to stations in the maritime mobile service for port operating in the New Orleans and Houston VTS areas.

NG116 Television translator relay stations may be authorized to use frequencies in this band on a secondary basis to stations operating in accordance with the Table of Frequency Allocations.

NG120 Frequencies in the 928–929 and 952–960 MHz bands may be assigned for multiple address systems as specified in Part 94.

NG121 In the band 216–220 MHz, the maritime mobile service is limited to operation along the Mississippi River and connecting waterways, and the Gulf Intracoastal Waterway.

NG122 Television Pickup stations may be authorized under Part 74 in the 6425–6525 MHz band on a secondary basis to stations operating in accordance with the Table of Frequency Allocations.

NG124 In the public safety radio service allocations within the bands 30–50 MHz, 150–174 MHz and 450–470 MHz, police radio service licenses are authorized to operate low powered radio transmitters on a secondary, non-interference basis in accordance with the provisions of Sections 2.803 and 90.19(f)(5) of the Rules.

NG127 In Hawaii, the frequency band 488–494 MHz is allocated exclusively to the fixed service for use by common carrier control and repeater stations for point-to-point inter-island communications only.

NG128 In the band 535–1605 kHz, AM broadcast licensees or permittes may use the AM carrier to transmit signals intended for utility load management. In the band 88–108 MHz, FM broadcast licensees or permittees are permitted to use subcarriers on a secondary basis to transmit signals intended for both broadcast and non-broadcast purposes.

NG129 In Alaska, the bands 76–88 MHz and 88–100 MHz are also allocated to the Fixed service on a secondary basis. Broadcast stations operating in these bands shall not cause interference to non-Government fixed operations authorized prior to January 1, 1982.

NG133 Stations authorized in the band 73–74.6 MHz as of December 1, 1961 may continue to operate until December 31, 1985. Such stations shall not be required to afford protection to radio astronomy observations within the United States and possessions, however, such stations must afford protection to the observatories of other countries.

NG134 In the band 10.45–10.5 GHz non-Government stations in the radiolocation service shall not cause harmful interference to the amateur and amateur-satellite services.

NG135 In the 420–430 MHz band the amateur service is not allocated north of line A (def. § 2.1). All amateur radio stations shall operate north of line A in accordance with the Agreement between the United States and Canada.

NG141 The frequencies 42.40 MHz and 44.10 MHz are authorized on a primary basis in the State of Alaska for meteor burst communications by fixed stations in the Rural Radio Service operating under the provisions of Part 22 of this Chapter. The frequencies 44.20 MHz and 45.90 MHz are authorized on a primary basis in Alaska for meteor burst communications by fixed private radio stations operating under the provisions of Part 90 of the Chapter. The private radio station frequencies may be used by Common Carrier stations on a secondary, noninterference basis and the Common Carrier frequencies may be used by private radio stations for meteor burst communications on a secondary, noninterference basis. Users shall cooperate to the extent practical to minimize potential interference. Stations utilizing meteor burst communications shall not cause harmful interference to stations of other radio services operating in accordance with the Table of Frequency Allocations.

Government (G) Footnotes

(These footnotes, each consisting of the letter "G" followed by one or more digits, denote stipulations applicable only to the Government)

G2 In the bands 216–225, 420–450 (except as provided by US217) 890–902, 928–942, 1300–1400, 2300–2450, 2700–2900, 5650–5925 and 9000–9200 MHz, the Government radiolocation is limited to the military services.

G5 In the bands 162.0125–173.2, 173.4–174, 406.1–410 and 410–420 MHz, the fixed and mobile services are all allocated on a primary basis to the Government non-military agencies.

G6 Military tactical fixed and mobile operations may be conducted nationally on a secondary basis: (1) to the meteorological aids service in the band 403–406 MHz; and (2) to the radio astronomy service in the band 406.1–410 MHz. Such fixed and mobile operations are subject to local coordination to ensure that harmful interference will not be caused to the services to which the bands are allocated.

G8 Low power Government radio control operations are permitted in the band 420–450 MHz.

G11 Government fixed and mobile radio services, including low power radio control operations, are permitted in the band 902–928 MHz on a secondary basis.

G27 The fixed and mobile services are limited to the military service.

G30 In the bands 138–144, 148–149.9, 150.05–150.8, 225–328.6 335.4–399.9, 1427–1429 and 1429–1435 MHz, the fixed and mobile services are limited primarily to operations by the military services.

G31 In the 3300–3500 MHz, the Government radiolocation is limited to the military services, except as provided by footnote.

G32 Except for weather radars on meteorological satellites in the band 9975–10025 MHz and for Government survey operations (see footnote US108), Government radiolocation in the band 10000–10500 MHz is limited to the military services.

G34 In the band 34.4–34.5 GHz, weather radars on board meteorological satellites for cloud detection are authorized to operate on the basis of equality with military radiolocation devices. All other non-military radiolocation in the band 33.4–36.0 GHz shall be secondary to the military services.

G42 Space command, control, range and range rate systems for earth station transmission only (including installations on certain Navy ships) may be accommodated on a co-equal basis with the fixed and mobile services in the band 1761–1842 MHz. Specific frequencies required to be used at any location will be satisfied on a coordinated case-by-case basis.

G56 Government radiolocation in the bands 1215–1300, 2900–3100, 5350–5650 and 9300–9500 MHz is primarily for the military services; however, limited secondary use is permitted by other Government agencies in support of experimentation and research programs. In addition, limited secondary use is permitted for survey operations in the band 2900–3100 MHz.

G59 In the bands 902–928 MHz, 3100–3300 MHz, 3500–3700 MHz, 5250–5350 MHz, 8500–9000 MHz, 9200–9300 MHz, 13.4–14.0 GHz, 15.7–17.7 GHz and 24.05–24.25 GHz, all Government non-military radiolocation shall be secondary to military radiolocation, except in the subband 15.7–16.2 GHz airport surface detection equipment (ASDE) is permitted on a co-equal basis subject to coordination with the military departments.

G100 The bands 235–322 MHz and 335.4–399.9 MHz are also allocated on a primary basis to the mobile-satellite service, limited to military operations.

The Government Printing Office has released the four volumes of the Code of Federal Regulations, Title 47, containing the Rules and Regulations of the FCC. Revised as of last October, these are the most current editions you are going to get. See last February's column for further explanation, and a listing of the regulations contained in each Part. The volumes, GPO stock number, and prices are as follows:

CFR Title 47	(Parts 0 - 19)	022-003-95261-6	$12.00
"	(Parts 20- 69)	022-003-95262-4	$14.00
"	(Parts 70- 79)	022-003-95263-2	$13.00
"	(Parts 80- end)	022-003-95264-1	$13.00

The prices of these represent a substantial increase in cost over last year. They still work out cheaper than the looseleaf editions, depending on which rule Parts you need. All four of the above volumes are available on microfiche for $2.25 each. Before you send off your money, be aware of the following. The first volume will not contain the revisions to Part 2 that you are getting for free in this newsletter, since they were just made. Same with the amendments to Part 15 in last months column. Part 13 will probably be deleted soon. Part 22 is going to be rewritten, one of these days (maybe). Part 90 should be reasonably current. And I think the revisions to Part 95 (GMRS) last fall should be included.

FEDERAL GOV'T and MILITARY

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:
Dennis Biagioli, 607 W. Pleasant Ave., Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

Welcome to the 100th anniversary edition of the RCMA NEWSLETTER! I think the mere fact this publication exists, and that in one hundred issues it has grown from a single sheet to the collection we all enjoy each month speaks well for RCMA and the people who make up the club work. I would like to thank those who in May of 1975 had the insight to found RCMA.

One of the primary objectives in forming this organization (and especially the NEWSLETTER) is "to share information with and help other monitor radio listeners."

It seems to me this point is being ignored by a large number of members. Recently several editors have become discouraged at the lack of member input to their columns and have resigned their posts. It is sad, but undeniably true. I have been amazed at the lack of support for specific projects I have tried to begin. For example, my request for National Park information so we could compile a valid guide for members. This column has shown every reply I received. And the Presidential Library and Museums? Nothing at all -- not one reply to date!

Some members seem to want to "take" what they can learn from others without giving anything back to the group. While still others want to profit from their information collecting without regard to its effect on the hobbists. I have had a number of frequency lists sent to me with instructions not to publish them, lest they find their way into other publications. But they were sent merely so I could provide information to those who write and request certain specifics.

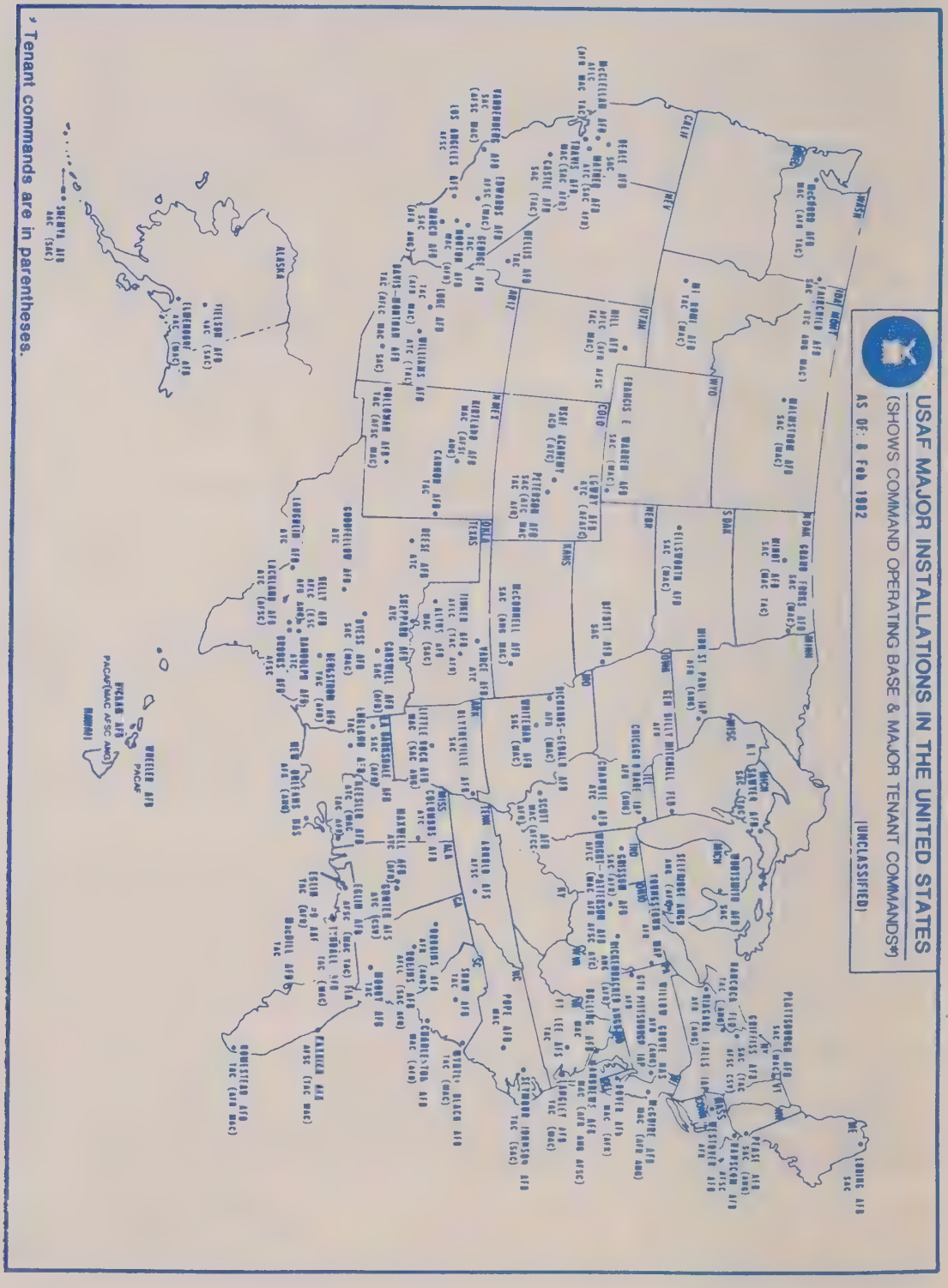
Many of us have purchased books and periodicals that contain a high percentage of erroneous material. If only the authors and/or publishers would be honest and not represent their effort as being accurate when indeed it is not. While some are what they claim, unfortunately many are not. Some are not even close.

It could be that some of these "authors" honestly do not know they are in error.

Federal Government/Military continued

I recently received a copy of a list a member purchased -- a list of frequencies supposedly of several Federal law enforcement agencies. No wonder those agencies have not approached the author of this particular book and urged him to stop publishing such sensitive material, over half of the listings incorrect! No doubt they enjoy having all the misinformation being passed around the country. That way the novice in the hobby might become discouraged when the rather expensive publication he bought proves useless.

Okay, on with the show! This is the first installment of a guide to selected active U.S. Air Force major installations. It will take up quite a bit of space. But, as reader input has been low of late, this is a good time to start.


USAF MAJOR INSTALLATIONS IN THE UNITED STATES
(SHOWS COMMAND OPERATING BASE & MAJOR TENANT COMMANDS*)
AS OF: 8 Feb 1982
(UNCLASSIFIED)
* Tenant commands are in parentheses.

ALTUS AFB, Oklahoma, within Altus city limits. MAC base. Major operations: airlift; tanker; transition training for C-5, C-141 pilots, naviagtors and flight engineers. Named for community.

ANDREWS AFB, Maryland, 11 miles southeast of Washington, D.C. MAC base. Major operations: Headquarters Air Force Systems Command, airlift, Malcom Grow USAF Medical Center, ANG tactical fighter, AFRES tactical airlift, U.S. Navy units. Named for Lt. Gen. Frank M. Andrews, killed in a 1943 crash in Iceland.

ARNOLD AFS, Tennessee, 7 miles southeast of Manchester. AFSC base. Major operations: Arnold Engineering and Development Center. Named for Gen. H. H. "Hap" Arnold.

BARKSDALE AFB, Louisiana, in Bossier City, four miles east southeast of Shreveport. SAC base. Major operations: Headquarters Eighth Air Force, heavy bomber and tanker, AFRES tactical fighter. Named for 2nd Lt. Eugene H. Barksdale, WW I pilot killed in 1926 while flight testing an observation plane near Wright Field, Ohio.

BEALE AFB, California, 13 miles east of Marysville. SAC base. Major operations: tanker, stratigic reconnaissance. Named for Brig. Gen. Edwin F. Beale, Indian agent in California priot to Civil War.

BERGSTROM AFB, Texas, 7 miles southeast of downtown Austin. TAC base. Major operations: Headquarters Twelfth Air Force, tactical reconnaissance, tactical fighter, AFRES tactical airlift. Named for Capt. John A. E. Bergstrom, first Austin serviceman killed in WW II, during Japanese bombardment of Clark Field, Philippines, Dec. 8, 1941.

BLYTHEVILLE AFB, Arkansas, 4 miles northwest of Blytheville. SAC base. Major operations: heavy bomber and tanker. Named for community.

BOLLING AFB, D.C., 3 miles south of the U.S. Capitol. MAC base. Major operations: support base for National Capital Region, AF Office of History, Headquaters USAF Chaplain Service. Named for Col. Raynal C. Bolling, WW I assistant chief of the Air Force, killed in France.

BROOKS AFB, Texas, 7 miles southeast of San Antonio. AFSC base. Major operations: Aerospace Medical Division, USAF School of Aerospace Medicine, Occupational and Environmental Health Laboratory. Named for Cadet Sidney J. Brooks, Jr., San Antonio native killed in 1917 on final solo flight before commissioning.

CANNON AFB, New Mexico, 7 miles west of Clovis. TAC base. Major operations: tactical fighter. Named for Gen. John K. Cannon, WW II commander of Allied Air Forces Mediterranean, and post-war commander of ATC, USAFE, and TAC.

CARSWELL AFB, Texas, 7 miles west northwest of downtown Fort Worth. SAC base. Major operations: Headquaters 19th Air Division, heavy bomber and tanker. Named for Maj. Horace S. Carswell Jr., a native of Fort Worth, WW II pilot killed in 1944 while attempting to crash-land a battle-damaged B-24; awarded Medal of Honor posthumously.

CASTLE AFB, California, 8 miles northwest of Merced. SAC base. Major operations: heavy bomber and tanker, fighter-intercepter, B-52 and KC-135 air crew training. Named for Brig. Gen. Frederick W. Castle, WW II pilot killed in 1944 when shot down over Liege, Belgium; awarded Medal of Honor posthumously.

CHANUTE AFB, Illinois, adjoining Rantoul, 14 miles north of Champaign-Urbana.

ATC base. Major operations: technical training in missile and aircraft maintenance and weather courses. Named for Octave Chanute, glider pilot and engineer who started flight experiments in 1896, adviser to the Wright brothers.

CHARLESTON AFB, South Carolina, in North Charleston. MAC base. Major operations: fighter-interceptor, airlift, AFRES airlift. Named for the city of Charleston.

COLUMBUS AFB, Mississippi, 9 miles north of Columbus. ATC base. Major operations: undergraduate pilot training. Named for the city of Columbus.

DAVIS-MONTHAN AFB, Arizona, within Tucson city limits. TAC base. Major operations: Titan II ICBM support, tactical fighter, tactical reconnaissance, combat crew training, Military Aircraft Storage and Disposition Center (AFLC). Named for two natives of Tucson who were early Air Corps officers, 2nd Lt. Samuel H. Davis, killed in aircraft crash in 1921 at Carlstrom Field, Florida, and 2nd Lt. Oscar Monthan, killed in 1924 crash at Luke Field in Hawaii.

DOBBINS AFB, Georgia, 3 miles southeast of Marietta. AFRES base. Major operations: AFRES tactical airlift, ANG tactical fighter. Named for Capt. Charles Dobbins, WW II pilot, killed in action off Sicillian coast.

DOVER AFB, Deleware, 4 miles southeast of Dover. MAC base. Major operations: airlift, AFRES airlift, largest air cargo port on east coast. Named for city of Dover.

DULUTH IAP, Minnesota, 5 miles northwest of Duluth. TAC base. Major operations: SAGE region control center (NORAD), tactical fighter, ANG tactical reconnaissance. Named for city of Duluth.

DYESS AFB, Texas, west southwest border of Abilene. SAC base. Major operations: heavy bomber and tanker, tactical airlift. Named for Lt. Col. William E. Dyess of Albany, Texas, WW II fighter pilot who escaped from Japanese after surviving Bataan Death March. Killed in P-38 crash in 1943.

EDWARDS AFB, California, 18 miles east of Rosamond. AFSC base. Major operations: Air Force Flight Test Center; training for aerospace test pilots, engineers and project managers; NASA Flight Research Center. Named for Capt. Glen W. Edwards, WW II pilot, killed in crash of YB-49 Flying Wing in 1948 test at Muroc Field, which was renamed in his honor.

ELGIN AFB, Florida, 2 miles southwest of Valparaiso. AFSC base. Major operations: research and development testing, Armament Development and Test Center, USAF Tactical Air Warfare Center, tactical fighter, rescue. Named for Lt. Col. Frederick I. Elgin, WW I flyer killed in crash in 1937.

EIELSON AFB, Alaska, 26 miles south of Fairbanks. AAC base. Major operations: tanker, arctic survival training, strategic reconnaissance, air defense. Named for Carl B. Eielson, Arctic aviation pioneer, first to fly airmail in Alaska in 1924.

ELLSWORTH AFB, South Dakota, 11 miles east northeast of Rapid City. SAC base. Major operations: heavy bomber and tanker, Minuteman ICBM support, SAC post-attack command and control system. Named for Brig. Gen. Richard E. Ellsworth, WW II pilot with 400 missions in the China-Burma-India Theater, killed in 1953 crash of RB-36.

ELMENDORF AFB, Alaska, adjacent to Anchorage. AAC base. Major operations: Headquaters Alaskan Air Command, tactical fighter, air superiority, theater airlift, communications, rescue, tactical airlift. Named for Capt. Hugh M. Elmendorf, pioneer pursuit pilot, killed in 1933 while testing new aircraft near Patterson Field, Ohio.

ENGLAND AFB, Louisiana, 5 miles west of Alexandria. TAC base. Major operations: tactical fighter. Named for Lt. Col. John B. England, WW II P-51 pilot and ace, killed in F-86 crash in France in 1954.

FAIRCHILD AFB, Washington, 12 miles west southwest of Spokane. SAC base. Major operations: heavy bomber and tanker, rescue and weather reconnaissance, combat crew survival training, ANG tanker. Named for Gen. Muir S. Fairchild, USAF vice chief of staff at his death in 1950.

FRANCIS E. WARREN AFB, Wyoming, adjacent to Cheyenne. SAC base. Major operations: Headquaters 4th Air Division, Minuteman ICBM support. Named for Francis Emory Warren, early Wyoming governor and sentor, Medal of Honor winner for action in the Civil War.

GENERAL BILLY MITCHELL FIELD, Wisconsin, 8 miles south of Milwaukee. ANG, AFRES tenants. Major operations: ANG tanker, AFRES tactical airlift. Named for Brig. Gen. William "Billy" Mitchell, pioneer who formulated early concepts of air power; posthumously awarded a Medal of Honor.

GEORGE AFB, California, 6 miles northwest of Victorville. TAC base. Major operations: tactical fighter, combat crew training. Named for Brig. Gen. Harold H. George, WW I fighter ace, killed in 1942 in aircraft crash near Darwin, Australia.

GOODFELLOW AFB, Texas, 2 miles southeast of San Angelo. ATC base. Major operations: multiservice cryptologic training. Named for 2nd. Lt. John J. Goodfellow Jr., Ft. Worth native, WW I fighter pilot killed in combat in France in 1918.

GRAND FORKS AFB, North Dakota, 16 miles west of Grand Forks. SAC base. Major operations: heavy bomber and tanker, Minuteman ICBM support. Named for city of Grand Forks.

GREATER PITTSBURGH IAP, Pennsylvania, 13 miles northwest of Pittsburgh. ANG, AFRES tenants. Major operations: ANG tanker, ANG tactical fighter, AFRES tactical airlift. Named for city of Pittsburgh.

GRIFFISS AFB, New York, 1 mile northeast of Rome. SAC base. Major operations: Rome Air Development Center, heavy bomber and tanker, communications, fighter-interceptor. Named for Lt. Col. Townsend E, Griffiss, native of New York, killed in an aircraft crash in 1942 while returning to England from Russia.

GRISSOM AFB, Indiana, 7 miles south of Peru. SAC base. Major operations: tanker, AFRES tactical fighter. Named for Lt. Col. Virgil I. "Gus" Grissom, Indiana native, second American astronaut to make space flight, killed Jan. 27, 1967, with astronauts Edward White and Roger Chaffee in Apollo capsule fire.

GUNTER AFS, Alabama, 4 miles east of Montgomery. ATC base. Major operations:

USAF Extension Course Institute, USAF Senior NCO Academy, Headquaters Air Force Data Systems Design Center. Named for William A. Gunter, mayor of Montgomery for 27 years and ardent air power advocate who died in 1940.

HANCOCK FIELD, New York, 10 miles north northeast of Syracuse, adjacent to municipal airport. TAC base. Major operations: Headquaters 21st Air Division, SAGE regiono control center (NORAD), ANG tactical fighter. Named for former Congressman Clarence E. Hancock.

HANSCOM AFB, Massachusetts, 17 miles morthwest of Boston. AFSC base. Major operations: Headquaters Electronic Systems Division, Air Force Geophysics Laboratory. Jointly operated by U.S. Air Force and the state of Massachusetts. Named for a Boston and Worcester newsman, Laurence G. Hanscom, pre-WW II advocate of private flying, killed in 1941 while giving flying lessons.

HICKAM AFB, Hawaii, 9 miles west of Honolulu. PACAF base. Major operations: Headquaters Pacific Air Forces, supports Air Force units throughout the Pacific, ANG tactical fighter, communications, airlift, fighter-interceptor. Named for Lt. Col. Horace M. Hickam, air pioneer killed in crash in 1934.

HILL AFB, Utah, 5 miles southwest of Ogden, 25 miles north of Salt Lake City. AFLC base. Major operations: Headquaters Ogden Air Logistics Center, tactical fighter, AFRES tactical fighter, radar and unmanned aerospace vehicle test and evaluation. Named for Maj. Ployer P. Hill, killed in crash while testing first B-17.

HOLLOMAN AFB, New Mexico, 6 miles southwest of Alamogordo. TAC base. Major operations: tactical fighter, tactical training, test and evaluation for airborne missles and missle re-entry vehicles, central inertial guidance test facility, AFSC track facility, radar target scatter site. Named for Col. George V. Holloman, guided missle pioneer, killed in 1946 in B-17 crash on Taiwan.

That's about all we have room for this time. We will continue on next month. But I will include a glossary of abbreviations and a map of the major installations that we are considering here.

GLOSSARY

AAC -Alaskan Air Command
AB -Air Base
ADCOM -Aerospace Defense Command
AF -Air Force

Federal Government/Military continued

AFB	-Air Force Base
AFCC	-Air Force Communications Command
AFLC	-Air Force Logistics Command
AFRES	-Air Force Reserve
AFS	-Air Force Station
AFSC	-Air Force Systems Command
ANG	-Air National Guard
ANGB	-Air National Guard Base
APT	-Airport
ARFF	-Air Reserve Forces Facility
AS	-Air Station
ATC	-Air Training Command
AU	-Air University
DOD	-Department of Defense
ESC	-Electronic Security Command
GLCM	-Ground Launched Cruise Missile
IAP	-International Airport
ICBM	-Intercontnental Ballistic Missile
MAC	-Military Airlift Command
MAP	-Municipal Airport
NAS	-Naval Air Station
NASA	-National Aeronautics & Space Admin.
NCO	-Noncommissioned Officer
NORAD	-North American Aerospace Defense Command
PACAF	-Pacific Air Forces
RAF	-Royal Air Force Station
RNAB	-Royal Netherlands Air Base
RNAF	-Royal Netherlands Air Force
SAC	-Strategic Air Command
SAGE	-Semi-Automatic Ground Environment
TAC	-Tactical Air Command
USAF	-United States Air Force
USAFA	-United States Air Force Academy
USAFE	-United States Air Forces in Europe
WW I	-World War One
WW II	-World War Two

I hope you enjoy the remainder of this special anniversary issue, as well as your whole month of June. Until next month.....

73's -

Lenny

International

This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to: Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902.

One hundred issues of the Newsletter! That's quite an achievement for any organization- מזל טוב (congratulations) to you (or should I say to us) RCMA. And just look at the quality of the output. Eighty plus pages of active, pertinent information each month.

The organization certainly has come a long way since its inception, and we should, each of us, congratulate ourselves, because RCMA is in fact every one of us. We are the life source of the club- together - as a vibrant, contributing unit of monitors.

RCMA has had its problems in the past, as any group will. We have done some stupid things and probably have hurt and alienated some people. My hope for the future is that we have learned from our mistakes and that we will continue to move forward. As we continue to grow, let us try to avoid stepping on any toes or making those mistakes again. We are a small community, we monitors, and each is truly dependent on the other as we search for the maximum pleasure in this hobby.

To RCMA, כל הכבוד , and here's my wish for at least another 100 issues.

••••

I first heard about RCMA in March of 1976 in a sister publication WFTDA. I wrote for information and heard from a guy named Iden Rogers. The group sounded interesting and I joined about June of that year. Looking at the membership list of that time, I see there were about 125 members- all but 5 or 6 from California, and most of them from Orange, LA, or Riverside counties. Really, just a local group of monitors. Iden, I later discovered, was one of the co-founders of the organization and was active in all phases of the operation, especially the Newsletter as it has presently evolved. We began to correspond by letter and then by tape and that correspondence has grown into a friendship which endures to this date. This has truly been one of the benefits of the organization for me.

It has been my privilege to be the editor of this column since its inception in November 1979. This will be the 53rd consecutive column and while it's been difficult at times because of the scarcity of information (we only have about 12 International members), it has always been fun. I have corresponded with many people and have met with several foreign members. That is an experience that is difficult to put into words and one which I wish you all could share.

••••

Received a letter from Ed (MD-082) a couple of months back. He asks:

" as far as you know, does Britain really still enforce the 'Wireless Telegraphy Act' in regard to forbidding anyone from listening in to non-public transmissions? Americans who visit with their FM radios frequently discover the police transmitting at 104-108MHz (British radios only cover 88-104MHz). (see International column-'Eavesdropping on Scotland Yard'- January 1982 and 'Scotland Yard-Revisited'- June 1983-ed.) As for public transmissions, I do know they have dropped their license requirements for 'radio listening', but during my stay in London in '76, a license was required for "TV viewing", with a fee of £ 5.00 per b/w set and £ 12.00 per colour set. They visit neighborhoods in vans in search of unlicensed sets which are electronically detectable. What's the latest on this, and listening to the non=public?"

Well, for this one, I had to go to my UK expert Geoff Halligey (ENG-005). He writes:

" I haven't a copy of the whole Act, particularly relevant to scanner etc. users. Here is a part of what is printed on the back of my TV license. The Wireless Telegraphy Act of 1959 states: 'if any message other than a message for the receipt of which the use of the apparatus is authorised is unintentionally received, no person shall make known its contents, origin, destination, or existence, or the fact of its receipt, to any person other than a duly authorized officer of Her Majesty's Government, a person acting under the authority of the Secretary of State or a competent legal tribunal, and shall not reproduce in writing, copy, or make use of any such message or allow it to be reproduced in writing, copied , or made use of.'

Nowhere does it say 'scanners are banned, forbidden...' in fact, as can be seen from Practical Wireless (a popular UK radio magazine), they are widely advertised. And in the Diagram of Spectrum Occupancy (reproduced here in the Feb 84 issue), there are plenty of legitimate bands for use of a scanner, i.e. Ham freqs., TV sound, space research, amateur satellite, marine band (to take on your yacht that is lying in the Thames), etc.

The above applies to the U.K. only, I don't know about other countries in Europe. In fact, the Act does not say that you must not tune in to certain types of messages and admits that you might unintentionally receive some. It is what you do with the message afterwards that matters.

There are a large number of illicit BC activities in the UK which the authorities seem powerless to stop. Very occasionally they confiscate a transmitter, but rarely prosecute. There are also a considerable number of out-of-band hams working around 6600kHz, using spurious calls (e.g. IB82, IF27, etc.)

My TV license costs me £46 a year (say $66); the funds received go to the BBC, which does not carry ads. Radios do not now require a license. Yes, TV detector vans still go around. Usually, it is widely announced in the press that the vans will be paying a visit to, say, Hull, next week. There is immediately a great surge in the purchase of licenses. There are very few prosecutions these days since the fine is quite hefty, something like £500 for using a set without a license! One man was recently prosecuted but he claimed that he used his TV only to watch films on his video recorder. He had no TV aerial erected, so he got away with it!"

••••

SWEDEN (continued)

It is the Central Administration of Swedish Telecommunications, or Televerkets Radiodivision, who regulates the use of two-way equipment in the country. They also control and approve all mobile-radio stations and other equipment in use with these systems. This is the only agency who issues licenses for the use of equipment and frequencies.

In Sweden, several types of mobile radios are in use, but mostly Scandanavian-made equipment is in use. These include SRA, from SRA Communications, an Ericsson company, SONAB- also Swedish, STORNO from Denmark, and the US-made Motorola.

For mobile-phone system use, in addition to those companies named above, AP, Siemens, Panasonic, Mitsubishi, Mobira, and NEC equipment is also seen, giving the Swedes quite a variety of manufacturers from which to choose.

Public Safety-Police

The Central Administration of Police Departments, or Rikspolisstyrelsen, is the administrator and organizer of the police departments out in the country. Rikspolisstyrelsen works directly under the government.

Sweden is divided into 24 regions, län (equivalent to States). Each län is divided into several kommuner (counties). The Police Departments work closely with the Board of the län. Generally, a central administration of police departments in each län, organize the work on a local basis. Almost every kommun has its own police department with one or more units- a police chief and staff.

The police department is often also divided into several separate agencies. These groups are concerned with criminal investigations, traffic, drug enforcement and security. Members of these groups work in both uniform and in street clothes, in marked and unmarked cars, and all agencies do coordinate their work with each other. The theory is that you can have people almost everywhere when you really need them. To do this, you need a good communications system to get in contact with the right person at the right moment.

The old radio system was scrapped between 1969 and 1971, and it is generally felt that the present system is a good one. The old system had a maximum of three frequencies in the 40MHz band. There were numerous problems with the old radios, many of which were tube types. There were too few frequencies and a lot of skip from Southern Europe! It must have been like coming to Paradise for the Police officers and other staff people when they started using the SRA-70 equipment about ten years ago.

The SRA-70 system permits use all over the country. Contact can always be made with the nearest radio communication-central. The system works with 40-80 channels on the frequencies between 78.0125 to 79.9875 MHz. Seven frequencies are nationwide. All communications with this system is simplex. If the nearest police department is not open, its radio system can be started via a three digit tone-code, and contact can be made with the police department next in line. In this case, the system relays the signal to the second station. All stations are equiped with selective tone-call. All stations also have an emergency button for immediate help and absolute priority for that call.

to be continued....

••••

As you see, I have been blessed with quite a bit of information. There is still a considerable amount of Sweden left to be presented as well as a very in depth look at Dublin, Ireland.But don't let this wealth of information stop you from contributing. I am always looking for more information and up-dated information especially from you travellers. Till next month- ריקי,להתראות.

☆ NEW ☆

NOW... 1,000 CHANNELS ON-LINE MEMORY FOR YOUR BEARCAT 250, 300 OR 350 SCANNER

☆ 1000 ☆ CHANNELS

Here is an incredible communications device especially designed for use with Bearcat 250, 300 and 350 programmable scanners. This is the amazing Scan Memory DH-1000 auxiliary memory storage device that simply plugs into your scanner and gives you 1,000 frequencies on-line and ready for scanning in convenient 50 channel banks.

This amazing device is compact enough to set on top of your unit with room to spare... yet it's packed with high grade commercial electronic components to assure long life and dependability. Excellent for base or mobile applications.

The DH-1000 is an external device that provides you with twenty banks of fifty channels each! It's like having the memory capability of twenty radios in one! And changing from one bank to another is as easy as flipping a switch. Just imagine the convenience of having all those frequencies on-line.

And think of the versatility it will give you! Enough memory capacity to store all your favorite frequencies... arranged by geographic area, or type of service, or any way you want! With a little planning, you can designate specific fifty channel banks for special monitoring applications... this unit is priceless in large metropolitan areas. Enough on-line storage to help eliminate the need to re-program your radio every time you want to monitor new frequencies.

Information is power, and the DH-1000 puts an abundance of information at your fingertips. Powered completely by your Bearcat scanner.... no batteries or clumsy power control cables to run..... simply remove one IC chip from the Bearcat circuit board and replace it with the specially terminated ribbon cable and you're ready to go. Quick and easy instruction manual makes installation a snap, and photo illustrations guide you through.

The Scan Memory DH-1000 is simple and easy to use. Illuminated controls are handy for night-time base or mobile applications. Designed for professional communications applications, it's also excellent for hobbyist use. 90 day parts & labor warranty.

For More Information

For more information about the Scan Memory unit plus our complete catalog of scanners, frequency directories, shortwave radio publications and more send 1.00 to:

FIRECOM COMMUNICATIONS
DEPT RM
PO BOX 61
NEW YORK, NY 10011

Firecom Communications is owned and operated by
Michael Esposito, RCMA Member NY-96

PAID ADVERTISEMENT

Marketplace

Gary M. Darcy, Editor

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members resulting from ads printed in this column. Send to:
RCMA MARKETPLACE, c/o Gary M. Darcy, P.O. Box 1329, Palmdale, CA 93550.

Please be sure to include your membership number.

All Marketplace ads will be accepted ONLY on special forms available from this column's editor. Send a self-addressed STAMPED envelope (business size) to the address above to receive a supply of forms. Foreign members do not need to include postage on envelopes they send.

FOR SALE: Regency ACT-10 channel. Does not include crystals. Excellent condition with ¼" headphone jack and all antennas and AC power cord. $60.00. Contact: RICHARD L. KRAMER (PA-093), 1939 Cleveland Ave., West Wyomissing, PA 19609 or phone 215-670-2041. (3-21-84)

FOR SALE: CDE 44. Rotor and control box with 75+ feet of cable. Excellent condition. Shipping not included. $60.00. Contact: RICHARD L. KRAMER (PA-093), 1939 Cleveland Ave., West Wyomissing, PA 19609 or phone 215-670-2041. (3-21-84)

FOR SALE: Rohn 30' free standing tower. Tower includes mounting plate, rotor plate. Shipping not included. $60.00. Contact: RICHARD L. KRAMER (PA-093), 1939 Cleveland Ave., West Wyomissing, PA 19609 or phone 215-670-2041. (3-21-84)

FOR SALE: Bearcat 100. Includes case, extra antenna & charger. Excellent condition. "No birdie on 460.100." $175.00. Contact: JEFF SHINN (ID-010), 7275 Cascade Dr., Boise, ID 83704 or phone 208-377-4551. (3-27-84)

FOR SALE OR TRADE: Bearcat 100. Fair condition; with all accessories and extra telescoping antenna. Receives well but needs work on battery cover. Contact: RICHARD S. STEDMAN (MA-071), 45-611 Willow St., Springfield, MA 01103 or phone 413-739-5999. (3-21-84)

FOR SALE: Bearcat 200. All accessories included. $300.00 Canadian. Contact: RUSSELL FARRELL (CAN-098), P.O. Box 1171, St. Catharines, Ontario, Canada L2R 7A7 or phone 416-688-1121 between 1000 - 2100 EST. (3-20-84)

FOR SALE: Tennelec Memoryscan MCP-1. Direct enter programmable scanner. Frequency range: 31.180-51.655; 151.180-171.655; 451.180-471.655 Mhz. Completely checked out and aligned by service technician in February of 1984. Excellent condition. $95.00 + shipping. Contact: EUGENE D. KROLAK JR. (MI-129), 173 West Labo Rd., Carleton, MI 48117 or phone 313-654-8387. (3-10-84)

FOR SALE: Bearcat crystals (10.8 IF). Send SASE for list. $2.50 each. Contact: ALBERT E. NICHOLS (RI-007), P.O. Box 8292 Garden City Stn., Cranston, RI 02920 or phone 401-397-7458. (3-6-84)

FOR SALE: Bearcat 350. Like new. Will pay UPS shipping. $275.00. Contact: ROBERT CELCE SR. (OH-119), 2012 Delaware Dr. S.E., New Philadelphia, OH 44663 or phone 216-339-2574.(2-29-84).

FOR SALE: Timex 1000. With 16K module, printer, recorder, scanner log program, and Ohio microfiche set. $160.00. Contact: JERROLD CALLAM (OH-000), 10 Avalon Rd., Mt. Vernon, OH 43050 or phone 614-397-3520 before 1200. (3-1-84)

FOR SALE: Realistic PRO-20A. All accessories included. $100.00 Canadian. Contact: RUSSELL FARRELL (CAN-098), P.O. Box 1171, St. Catharines, Ontario, Canada L2R 7A7 or phone 416-688-1121 between 1000 - 2100 EST. (3-20-84)

FOR SALE: SBE Opti-Scan. Includes AC/DC power cords, mounting bracket, three unused program cards, several programmed cards. Needs 2 new bulbs and antenna recepticle resecured. $100.00. Contact: CASEY CROOKHAM (OR-054), Rt. 6 Box 242, Caldwell, ID 83605. (3-21-84)

FOR SALE: Regency Digital Flight Scan. Includes AC power cord, manual and antenna. Mint condition. Will ship UPS. $140.00. Contact: CASEY CROOKHAM (OR-054), Rt. 6 Box 242, Caldwell, ID 83605. (3-21-84)

Marketplace continued

FOR SALE: February 1983 State Index Microfiche. Selling by individual state. All states except OR, ID, TX, NC, SC, MA, MN, MI available. $2.50 each state. Contact: CASEY CROOKHAM (OR-054), Rt. 6 Box 242, Caldwell, ID 83605. (3-21-84)

FOR SALE: Regency Scanner crystals. Send SASE for list. Contact: MARK A. THOMAS JR. (VA-051), 12163 Nokesville Rd., Bristow, VA 22013 or phone 703-594-2333.

photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 x 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to:

Hugh Stegman, 11622 Exposition Blvd., #2, Los Angeles, CA 90064

CONGRATULATIONS TO RCMA ON PUBLICATION OF NEWSLETTER #100!

****

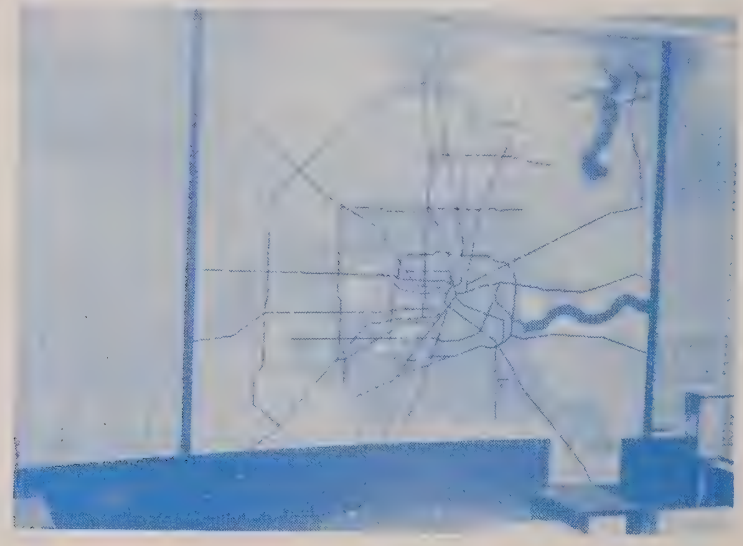
Elsewhere is reprinted the first RCMA Newsletter, a single sheet without much in it. To see this publication grow into what it is now is to realize the true validity of letting the members write their own material. Keep it up - this newsletter moves a fantastic amount of info each month.

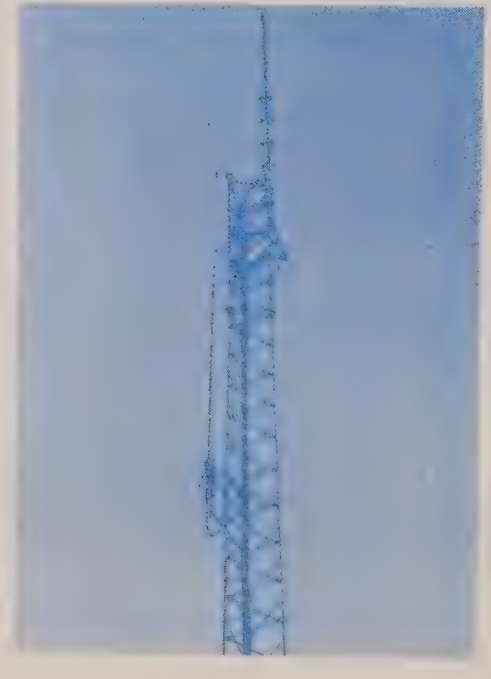
Houston, TX FD Alarm Center - - Marvin Suggs, Jr. (TX-002)

This modern facility is on two levels. Upstairs is the EMS/Ambulance area, with CAD and all the usual bells & whistles (photo #1).

Fire dispatch is done on the lower level (photo #2). Dispatchers can enter box numbers as well as addresses on the CRT's, and responses for alarms one through five are displayed. Quite a difference from what we saw in Chicago!

The computer also updates the status board (photo #3), which shows the station locations and all equipment, plus ambulances.





Finally, we see a firehouse antenna system. The dish is for microwave, with UHF stacked dipoles above and the VHF "big stick" alongside (photo #4). Thanks to Marvin for some great shots.

RADIO COMMUNICATIONS MONITORING ASSOCIATION
P.O. BOX 4563
ANAHEIM, CA 92803

NEWSLETTER #1 - SEPTEMBER 1975

On Aug. 18, 1975, RCMA had its first meeting with doors open to the public. About 35 people were in attendance. The first meeting was mostly to get a feel for how a club of this sort might interest monitor radio listeners and to see what direction people would like to see the club take. Part of the meeting was structured and part was random conversation. It appeared that most of those who attended enjoyed themselves and would like to attend another.

The objectives of the club were read at the meeting and are stated again here: 1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening; 2) To try to be knowledgeable about local two-way radio systems and operations; 3) To promote an understanding of the legal and ethical uses of monitor receivers; 4) To share information with ahd help other monitor radio listeners; 5) To try to understand and improve receivers and antenna systems; 6) To offer suggestions and formal recommendations to monitor receiver manufacturers; 7) To arrange tours and field trips to communications facilities; 8) To secure guest speakers on subjects related to the hobby; and 9) To compile a directory of member ethusiasts and their specific monitoring interests and distribute same to members.

The directory listing monitor listeners and their specific interests will be printed and sent out after our next meeting. Hopefully some new names will be added at the next meeting.

NEXT MEETING: FRIDAY, OCT. 3, 7:30 PM, KEYSTONE SAVINGS AND LOAN, 555 N. EUCLID, ANAHEIM

At this meeting it appears that we will have three short talks -- Orange County/ Police Dept. radio systems, a talk on some aspect of Fire Dept. operations and/or communications, and one on monitor antennas.

Bring all your crystals that are on frequency and operating properly that you wish to trade or sell. Make a clearly written list of your crystals and if any are of a type other than ones that work in Regency receivers, please make a note to that effect.

If you have any monitor receivers you wish to sell bring them or at least a written description of what you have.

Subjects for following issues of this newsletter: You may send in any information you like regarding the hobby of monitor radio listening. (The editor, of course, reserves the right not to print any material that might not be pertinent, may violate the law, or may be in excess of available space for any given issue.) Good items for the newsletter would be: patrol areas for specific units, duties of specific units, frequencies, call letters, repeater and transmitter locations, comments about specific receivers and antennas you have used, etc. The newsletter can be a good place to ask questions about subjects related to monitoring with hopes that another person will offer an answer. If you have receivers, antennas, or crystals for sale or trade they may be advertised in this newsletter at no charge but include receiver serial numbers in the ad.

Somewhere along the line the club will have to establish dues to cover expenses such as this newsletter and the Monitor Listeners Directory. We may talk some about this at the next meeting.

Newsletter Editor: I would like to establish the fact that I am volunteering only temporarily as editor of this newsletter, that is, for three or four issues, since I have too many other irons in the fire. I hope someone will have an interest in picking it up where I will leave off. If anyone does have an interest I will help him get started. Write to the RCMA, P.O. Box or call 714-688-1168.

I hope to see all of you at the next meeting - [illegible]

****

CQ Earth?

This photo was taken a bit higher up. Dr. Owen Garriott, W5LFL aero space shuttle mobile, listens from the Spacelab module while contacting some of the 350+ amateurs on two meter FM. His HT is a slightly modified Motorola with 4.5 watts output. Signals were extremely strong on the ground. One pass over L.A. had him full quieting on hand helds with the rubber ducky - INDOORS. The mini-cassette machine recorded all audio. The antenna, a special ring radiator, was designed to fit the window seen just above his head. Despite some problems with interference and just plain confusion, NASA was impressed enough that more such operation may be allowed next year.

With this, I have run every photo I have (over 40 this year). Unless you guys want me waxing enthusiastic over the Olympics for the next 4 months, send some more good stuff quick! Let's write another 100 Newsletters.

Get A FCC HAM LICENSE In Just 9 Weeks!

The FCC goes public with all amateur radio test questions. Volunteer Hams will give the tests.

A code & theory home-study course prepares you to pass your Ham Radio Test and receive FCC call letters. No previous electronics background required. All 200 novice test questions and answers covered in our tapes and book. Have fun learning the code with our tape cassettes.

GUARANTEED PASS! Send for more details, or $64.00 for the complete beginners course, now!

Gordon West Radio School 2414 College Dr., Costa Mesa, CA 92626

PAID ADVERTISEMENT

Public Safety

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for police, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

STANDARD TEN SIGNALS

The RCMA recognizes that most Public Safety Departments use "ten signals" as a part of their standard communication procedure. Our editors will not print the more common signals, which are listed below, but will note additions and differences when listing a departments "ten signals". By not having to print the below listed signals repeatedly, we will save valuable space for additional data. Only differences and additions to this listing will be noted by editors. Please refer to this listing when monitoring. Any corrections or additions will be noted during coverage by the editor.

10-1	Receiving poorly	10-33	Emergency
10-2	Receiving well	10-36	Correct time
10-3	Stop transmitting	10-41	Beginning duty tour
10-4	Okay, acknowledgement	10-42	Ending duty tour
10-5	Relay	10-43	Information
10-6	Busy	10-50	Accident (F, PI, PD)
10-7	Out of service	10-51	Wrecker needed
10-8	In service	10-52	Ambulance needed
10-9	Repeat	10-55	Intoxicated driver
10-13	Weather / Road conditions	10-56	Intoxicated pedestrian
10-18	Quickly	10-57	Hit & run accident (F, PI, PD)
10-19	Return to ----------	10-70	Fire alarm
10-20	Location	10-71	Advise nature of fire
10-21	Call ------- by telephone	10-72	Report progress of fire
10-22	Disregard	10-73	Smoke report
10-23	Arrived at scene	10-74	Negative
10-24	Assignment completed	10-76	Enroute
10-25	Report in person to ---------	10-77	Estimated time of arrival
10-27	Drivers license information	10-82	Reserve lodging
10-28	Vehicle registration information	10-88	Telephone number of ------
10-29	Check for wanted	10-99	Wanted / Stolen is indicated
10-30	Unnecessary use of radio	10-0 / 10-100	Use caution

PUBLIC SAFETY — SOUTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Florida, Georgia, N. Carolina, S. Carolina, W. Virginia, and Virginia:

William Mauldin, 2268 N.W. 30th Rd., Boca Raton, FL 33431

NORTH CAROLINA STATE HIGHWAY PATROL

INTRODUCTION: This month we will devote the entire Public Safety Southeast to one single agency. It is a must for complete coverage. Perhaps the most advanced state enforcement agency in the Southeast is the NORTH CAROLINA STATE HIGHWAY PATROL. The radio communications system of the NCSHP certainly far surpasses any other that we have ever covered. The links and repeaters in North Carolina offer excellect listening as well as the main low band frequencies! · Don't overlook them if one is close by!

Our sincere thanks to Paul Dunn (NC-021) who has helped in this coverage. Without his assistance and personal research, we could not have presented this material to you! Should you have corrections or additions to this data, please write this editor and/or Paul Dunn, Post Office Box 243, Benson, NC 27504. Members are urged to send in updates and notes for future coverage! Please pay special attention to the entries which have "???" notes! It would be helpful to have all of the blanks filled, giving us complete data on this very complicated and involved communications system!

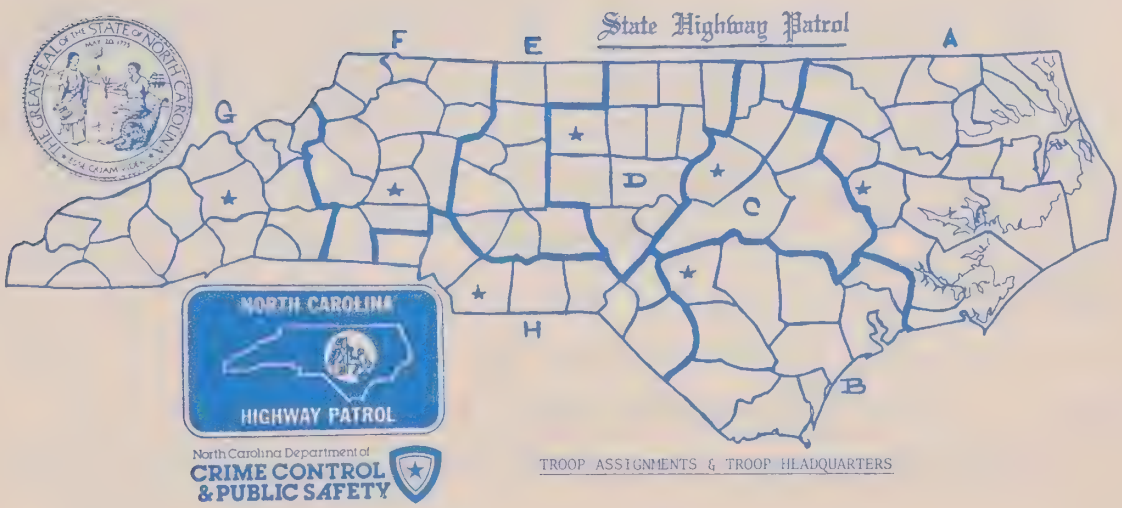
Members monitoring any North Carolina agency should note the radio codes of the NCSHP, as many local departments use the same ten codes.

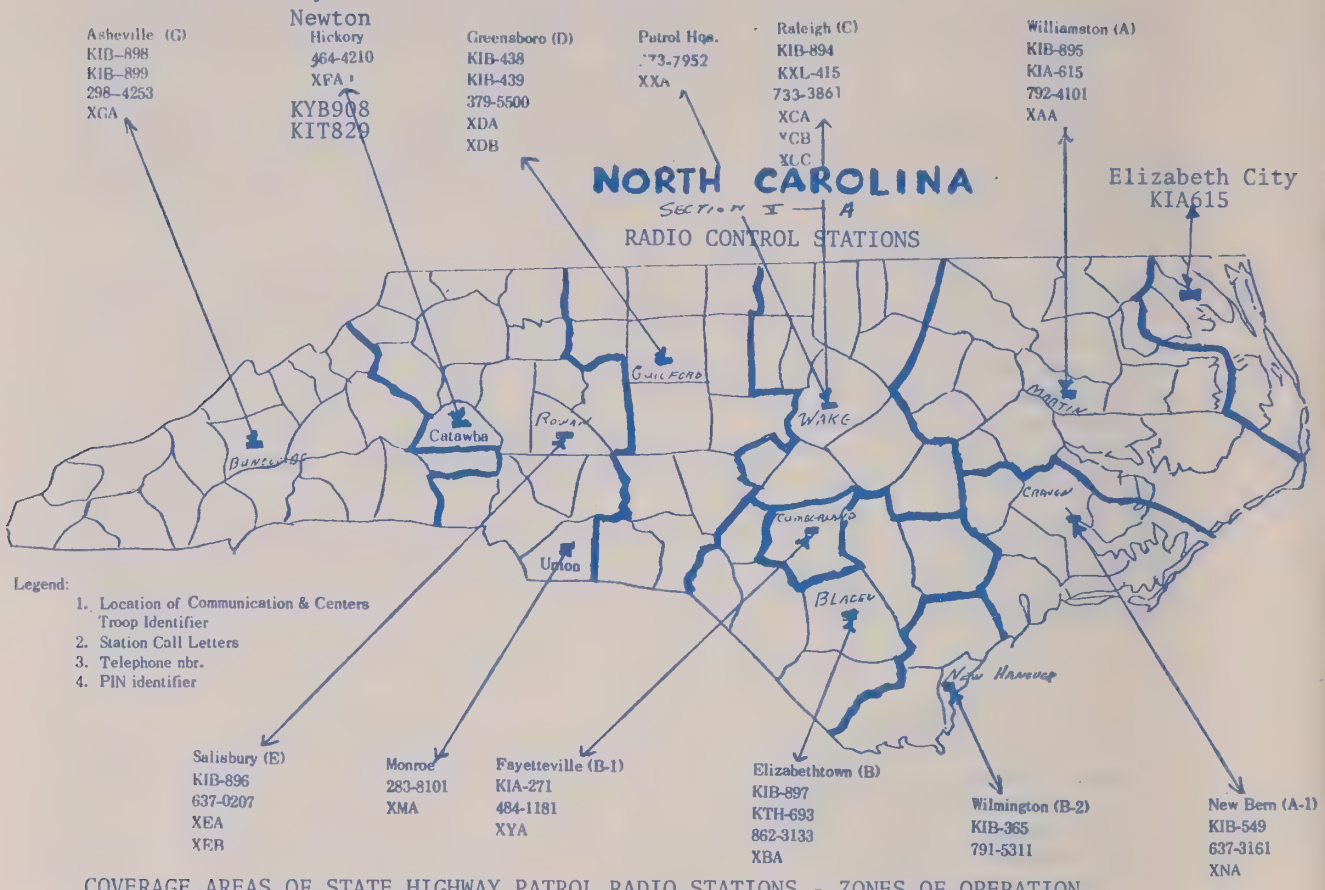
This article does not attempt to cover the NC Dept. of Corrections, the Alcohol Beverage Control system, nor the State Bureau of Investigation system. Although these agencies are usually dispatched by the NCSHP telecommunicators, and they are mentioned in the listing, there is just not enough room in one edition to cover them all. This is the first attempt to cover the NCSHP since Paul Dunn did an article in the March 1981 RCMA Newsletter. We will have notes from Paul regarding other North Carolina agencies next month.

Before getting into the NCSHP system, here are a few additional notes of interest. All NCSHP vehicles have regular North Carolina license plates. Marked vehicles (black and silver) have license plates starting with the letters HP. Unmaked vehicles have license plates starting with HPI. If you see a marked patrol car with license HP-289, for example this means that the trooper assigned to that car has seniority number #289. An unmarked vehicle assigned to the same trooper would display license HPI-289. Trooper seniority is updated yearly and the lower the number, the longer the trooper has been with the patrol. Troopers are assigned to a vehicle, do take them home at night, and are graded on the operating expense of that car.

Used NCSHP vehicles are sold to police departments within the state, however, they are also offered to the public on a sealed bid sale. Those interested (living within NC) should request a copy of the State Surplus Property bid, issued weekly, from the NC Division of Purchase and Contract, 116 West Jones Street, Raleigh, NC. The vehicles are quite deluxe, come with lots of quality options and are painted by the state before sale. Inspect before you buy! Troop Headquarters have their own garages, offering prior to sale inspections to those interested.

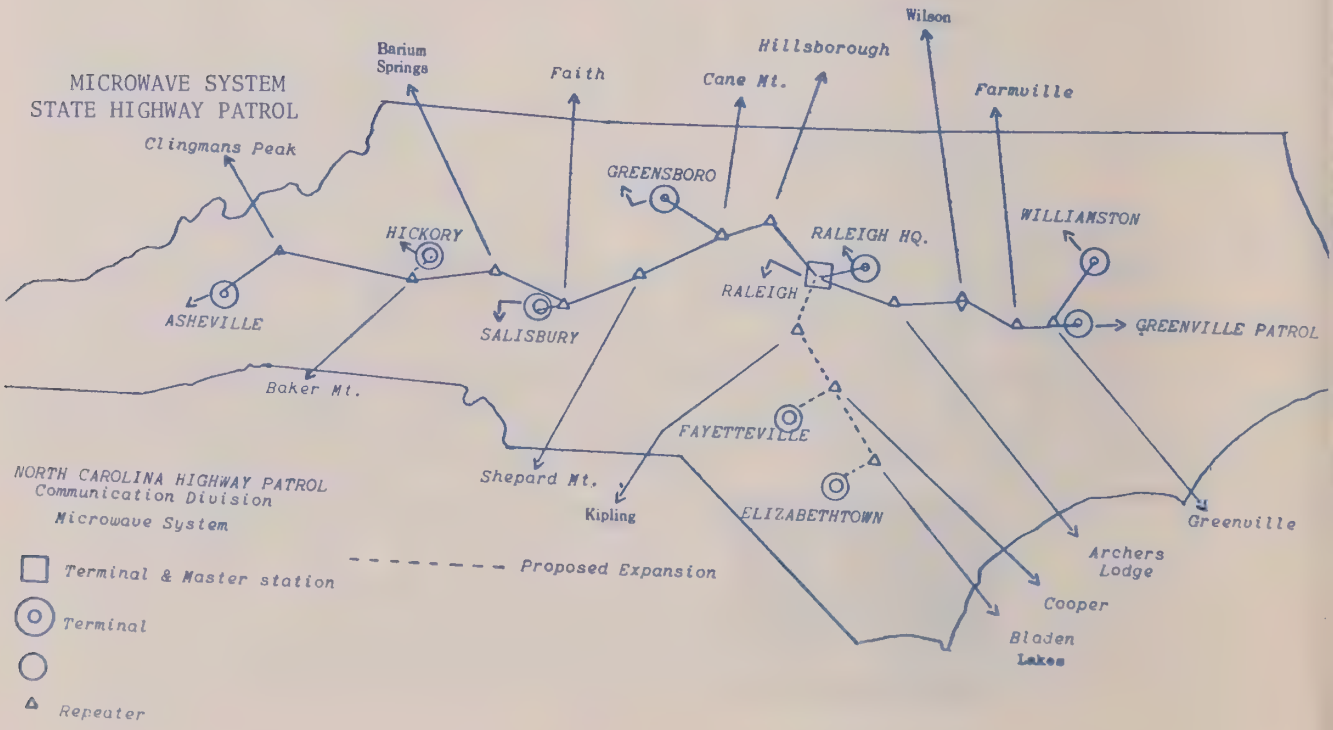
Standard vehicle radios in North Carolina are made by Aerotron in Raleigh. The standard patrol vehicle is equipped with a 12 channel, 100 watt, low band Aerotron scanning radio. Regular whip and spring antennas are mounted on marked vehicles. Unmarked vehicles have disguise antennas. All patrol vehicles have blue lights and electronic sirens with PAs. The radios all have telephone handset microphones. The NCSHP has it's own radio and vehicle repair garages, located at all troop headquarters. Gasoline is obtained from state owned pumps. Speed checking devices are radar, Vascar, and speedometer clocking. The NCSHP has airplanes and helicopters, but they are for special enforcement and transporation, not for clocking of speeders. Radio ID numbers are diplayed at the left bottom corner of the rear windown on all marked patrol vehicles.





COVERAGE AREAS OF STATE HIGHWAY PATROL RADIO STATIONS - ZONES OF OPERATION

Only Control Stations Are Indicated - No Repeaters



NORTH CAROLINA STATE HIGHWAY PATROL

OFFICIAL DISPATCH SIGNALS:

10-1 Signal weak
10-2 Signal good
10-3 Stop transmitting
10-4 Affirmative, OKAY
10-5 Relay (to)
10-6 Busy
10-7 Out of service
10-8 In service
10-9 Say again, repeat
10-10 Negative
10-12 Standby, stop
10-13 Existing conditions
10-15 Message delivered
10-16 Reply to message
10-17 Enroute
10-18 Urgent
10-19 (In) contact
10-20 Location
10-21 Call ( ) by phone
10-22 Disregard
10-23 Arrived at scene
10-24 Assignment completed
10-25 Report to (meet) ( )
10-26 Estimated arrival time
10-27 License/Permit information
10-28 Ownership information (vehicle)
10-29 Records check
10-30 Danger/Caution
10-31 Pickup ( )
10-32 ( ) units needed
10-33 Help me quick!
10-34 Time
10-40 Fight in progress
10-41 Beginning tour of duty
10-42 Ending tour of duty
10-43 Chase
10-44 Riot
10-45 Bomb threat
10-46 Bank alarm
10-47 Complete assignment quickly
10-48 Detaining subject, expedite
10-49 Drag racing
10-50 Accident
PD = Property damage only
PI = Personal injury reported
F = Fatal injuries
10-51 Wrecker needed
10-52 Ambulance needed
10-53 Road blocked
10-54 Hit & run (PD, PI, F)
10-55 Intoxicated driver
10-56 Intoxicated pedestrian
10-57 Request Breathalyzer Operator at ( )
10-58 Direct traffic
10-59 Convoy or escort
10-60 Investigate suspicious vehicle
10-61 Stopping suspicious vehicle
10-62 Burglary/Breaking & entering
10-63 Investigate ( ) at ( )
10-65 Report of armed robbery
10-66 Notify coroner or medical examiner
10-68 Livestock on highway
10-69 Advise present phone number
10-70 Improperly parked vehicle
10-71 Improper use of radio
10-72 Have prisoner in custody
10-73 Mental subject
10-74 Prison or jail break
10-75 Records indicate wanted or stolen
10-77 Assist fire department with traffic

Signal 6 Call ( ) at ( )
Signal 7 Meet ( ) at ( )
Signal 8 Equipment ready for service
Signal 9 Troop or District meeting
Signal 11 All men affected by this signal should prepare for emergency duty and remain in radio contact.
Signal 21 Request radio or vehicle repair
Signal 22 Accident report via radio
Signal 23 Message requiring special handling
Signal 24 Daily accident summery
Signal 25 ( ) needs immediate assistance to make an arrest of resisting person. Report at once to ( )!
Signal 26 Computer terminal out of service

Signal 24 is broadcast between 1500E and 1600E every day. Format is as follows:
Killed past 24 hours: ( )
Injured past 24 hours: ( )
Killed to date this year: ( )
Killed to date last year: ( )

"10-13" is broadcast every morning during the winter months giving highway and weather conditions by troop.

STATE HIGHWAY PATROL - TROOP AND DISTRICT LOCATIONS:

Troop "A" Greenville Headquarters - Captain #108; Lts. #120 & #121; S/Sgts #A119 & #A120.

District 1	Roanoke Rapids	F/Sgt #A111;	District 1 L/Sgts #A122 & #A123
District 2	Ahoskie	F/Sgt #A211	
District 3	Elizabeth City	F/Sgt #A311	(Apply Troop Letter
District 4	Chocowinity	F/Sgt #A411	& Dist. Number plus
District 5	Greenville	F/Sgt #A511	22, 23 and 24 in some
District 6	New Bern	F/Sgt #A611	cases for L/Sgt IDs.)
District 7	Kinston	F/Sgt #A711	
District 8	Morehead City	F/Sgt #A811	

Troop "B" Fayetteville Headquarters - Captain #109; Lts. #122 & #123; S/Sgts #B119 & #B120.

District 1	Fayetteville	F/Sgt #B111; District 1 L/Sgts #B122 & #B123
District 2	Clinton	F/Sgt #B211
District 3	Jacksonville	F/Sgt #B311
District 4	Kenansville	F/Sgt #B411
District 5	Whiteville	F/Sgt #B511
District 6	Wilmington	F/Sgt #B611
District 7	Lumberton	F/Sgt #B711

Troop "C" Raleigh Headquarters - Captain #110; Lts. #124 & #125; S/Sgts #C119 & #C120.

District 1	Rocky Mount	F/Sgt #C111; District 1 L/Sgts #C122 & #C123
District 2	Goldsboro	F/Sgt #C211
District 3	Raleigh	F/Sgt #C311
District 4	Henderson	F/Sgt #C411
District 5	Wilson	F/Sgt #C511
District 6	Smithfield	F/Sgt #C611
District 7	Durham	F/Sgt #C711

Troop "D" Greensboro Headquarters - Captain #111; Lts. #126 & #127; S/Sgts #D119 & #D120.

District 1	Siler City	F/Sgt #D111; District 1 L/Sgts #D122 & #D123
District 2	High Point	F/Sgt #D211
District 3	Reidsville	F/Sgt #D311
District 4	Roxboro	F/Sgt #D411
District 5	Graham	F/Sgt #D511
District 6	Asheboro	F/Sgt #D611

Troop "E" Salisbury Headquarters - Captain #112; Lts. #128 & #129; S/Sgts #E119 & #E120.

District 1	Lexington	F/Sgt #E111; District 1 L/Sgts #E122 & #E123
District 2	Albemarle	F/Sgt #E211
District 3	Salisbury	F/Sgt #E311
District 4	Winston Salem	F/Sgt #E411
District 5	Elkin	F/Sgt #E511
District 6	Concord	F/Sgt #E611

Troop "F" Newton Headquarters - Captain #113; Lts. #130 & #131; S/Sgts #F119 & #F120.

District 1	Morganton	F/Sgt #F111; District 1 L/Sgts #F122 & #F123
District 2	Wilksboro	F/Sgt #F211
District 3	Lenior	F/Sgt #F311
District 4	Statesville	F/Sgt #F411
District 5	Hickory	F/Sgt #F511

Troop "G" Asheville Headquarters Captain #114; Lts. #132 & #133; S/Sgts #G119 & #G120.

District 1	Burnesville	F/Sgt #G111; District 1 L/Sgts #G122 & #G123
District 2	Marion	F/Sgt #G211
District 3	Hendersonville	F/Sgt #G311
District 4	Asheville	F/Sgt #G411
District 5	Waynesville	F/Sgt #G511
District 6	Bryson City	F/Sgt #G611

Troop "H" Monroe Headquarters - Captain #115; Lts. #134 & #135; S/Sgts #H119 & #H120.

District 1	Gastonia	F/Sgt #H111; District 1 L/Sgts #H122 & #H123
District 2	Hamlet	F/Sgt #H211
District 3	Monroe	F/Sgt #H311
District 4	Shelby	F/Sgt #H411
District 5	Charlotte	F/Sgt #H511

NORTH CAROLINA STATE HIGHWAY PATROL RADIO SYSTEM

The NCSHP Radio System is a complex system of low band base stations, operated by several control stations. These control stations have many control frequencies available to activate many of the widely scattered remote base transmitters. Remote receiver sites, receiving the low band mobile units, relay the signals back to the control stations by VHF or UHF links. The system is connected together by 155.190 MHz (North Carolina Interstate Mutual Aid Frequency) and the "PIN", Police Information Network computer system. The State Highway Patrol also has it's own microwave telephone system, (10525.0 MHz & 24150.0 MHz), inter connecting most troop headquarters to Raleigh and other troop headquarters. A map of this system is shown later. The microwave frequency is 10525.000 MHz. Keep in mind that 99% of all NCSHP base to mobile and mobile to base communication is done on the 42 MHz low band frequencies. VHF and UHF frequencies shown in the listing below are used only for links, relays and control operations! Most of these transmitters are highly directional back to the control station. The NCSHP uses 154.920 and 154.680 as base to base communication, on a very limited basis. The state also has some

portable VHF repeaters, used with walkie talkies. This will be noted later.

In listing the NCSHP radio frequencies, information known about VHF and UHF links is shown, however, if the use is unknown, information is left blank. Should you monitor the VHF and UHF links, please advise the editor of what you hear so future updates will be more complete. Of all State Highway Patrol systems in the Public Safety Southeast, the NCSHP has by far the best and most professional system in operation!

RADIO FREQUENCY ASSIGNMENTS AND IDENTIFICATIONS:

N.C. State Highway Patrol Base Station Channels & Use:

Channel 1	42.620 MHz	Base Transmitter (Mobile TX is 42.780 MHz)
Channel 2	42.520 MHz	Base Transmitter (Mobile TX is 42.800 MHz)
Channel 3	42.600 MHz	Base Transmitter (Mobile TX is 42.660 MHz)
Channel 4	42.640 MHz	Base Transmitter (Mobile TX is 42.760 MHz)
Channel 5	42.500 MHz	Base Transmitter (Mobile TX is 42.700 MHz)

All NCSHP vehicles can transmit simplex on the base station frequency and on 42.820 MHz.

N.C. State Highway Patrol base stations also use these frequencies:

42.560 MHz	Base Transmitter, Dept of Corrections
155.190 MHz	Base to Base for NC Interstate System
154.680 MHz	Base to Base for NCSHP
154.920 MHz	Base to Base for NCSHP

Although all State Highway Patrol vehicles can transmit simplex on the base station channels noted above, there are four (4) official simplex frequencies:

42.820 MHz	State Highway Patrol, available in all patrol cars
42.720 MHz	State Bureau of Investigation
42.580 MHz	State Bureau of Investigation
42.840 MHz	State Alcohol Enforcement Officers
42.560 MHz	Department of Corrections Officers

Official users of State Highway Patrol frequencies are:

State Highway Patrol, ID breakdown later in this article
State Bureau of Investigation, Attorney General's Office, ID in 1100 series
State License & Theft Officers, DMV, IDs 1400 thru 1600 series
Federal Officers, FBI, Secret Service, IDs 1700 series
State Alcohol Enforcement Officers, IDs 1800 thru 1999 series
Dept of Corrections Officers, IDs from 2000 thru 2250.

Governor "1"; Governor's wife "1A"; Lt. Governor "2"

N.C. State Highway Patrol ID number key:

1. Radio call ID numbers 86 thru 88 are assigned to the Attorney General's office.
2. 100 thru 350 are administrative officers, troop commanders, with highest rank having the lowest number. For example "100" is Patrol Commander.
3. Governor Security: #320 is the Sgt. in charge, and security troopers are C-801 - C810.
4. Radio Call numbers of State Highway Patrol officers and troopers is based on assignment and rank. For example, Commander of Troop "A" is #108, Commander of Troop "B" is #109. The F/Sgt of Troop "A", District 1 would be #A111, the F/Sgt of Troop "A", District 2 would be #A211 and so on. The letter in the radio call ID is the Troop assignment. Here is a key for general use:

Radio Call "C411":

"C" indicates Troop "C", 4 indicates District 4, 11 indicates identification.
All Districts are supervised by a First Sergeant and two or more Line Sergeants.
All F/Sgts have ID numbers which end in "11".
All L/Sgts have ID numbers which end in 22, 23, or 24.
All troopers have ID numbers which end in a number of 30 or higher.

Radio Service, Communications Personnel, and Vehicle Maint. Personnel also have radio ID numbers. The letter indicates Troop assignment. Radio personnel have ID numbers in the 190 series and vehicle maint. personnel have IDs in the 170 series, with the more senior man having the lowest number. An example would be C190. This would be the ID of the senior radio engineer in Troop C.

MOBILE LICENSES, State Highway Patrol: This is a general listing from the FCC records showing the mobile frequencies listed to NCSHP... 154.875 MHz, 156.090 MHz, 155.190 MHz, 155.970 MHz, 158.700 MHz, 154.680 MHz, 159.210 MHz, 154.905 MHz, 159.150 MHz, 458.700 MHz, 465.375 MHz, 42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz, 42.780 MHz, 42.800 MHz, 42.820 MHz, 42.660 MHz, 42.760 MHz, 42.700 MHz. SBI authorized above, plus 42.720 MHz & 42.580 MHz. ABC authorized above, plus 42.840 MHz. Dept of Corrections authorized NCSHP channels plus 42.560 MHz.

CONTROL STATIONS: These are where the actual radio "telecommunicators" are located. When an operator in Greensboro calls a trooper, he will say, for example: "Greensboro D211". The transmitter site may be Greensboro (if you hear KIB439 as station ID in conversation) or it may be the remote transmitter at Uwharrie (KIB438). In monitoring, you have to listen for station call letters to know what transmitter you are hearing. There are no repeaters for mobiles, only links which bring the mobile transmission back to the base on another VHF or UHF frequency should the low band responding vehicle be out of direct range of the control base station.

The Control Stations are... Elizabeth City, New Bern, Wilmington, Williamston, Raleigh, Elizabethtown, Fayetteville, Greensboro, Newton, Salisbury and Asheville. These are the only locations where live telecommunicators are located. In the listing below, when the transmitter is located at the operators location, a (*) will be shown. (B) indicates base transmitter, (L) indicates a control link transmitter, (R) indicates a repeater. A control transmitter is a signal being sent on one frequency, then actually being transmitted again at the remote base site on another transmitter output frequency. A repeater receives a signal on one frequency and then re-transmits the received audio on another frequency. (BR is a base repeater and MR is a mobile rpeater.)

Control Station: Elizabeth City — Base Call Name: "E.City"

KIB615	*Elizabeth City	B	42.500 MHz, 42.520 MHz, 42.600 MHz,
		B	42.620 MHz, 42.640 MHz
KIX90	Elizabeth City	L	72.260 MHz Repeats 42.??? to Williamston
KIX90	Elizabeth City	L	72.880 MHz Repeats 42.780 MHz to Williamston

Control Station: New Bern — Base Call Name: "New Bern"

KIB549	*New Bern	B	42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
		B	155.190 MHz, 154.680 MHz, 154.920 MHz
KIL57	Comfort	MR	73.220 MHz Repeats 42.800 MHz to New Bern
WCC927	New Bern	L	72.840 MHz Repeats 42.800 MHz to Williamston
WCW529	New Bern	L	453.000 MHz Repeats 42.??? MHz to ???
WCW570	Jacksonville	MR	458.000 MHz Repeats 42.??? MHz to ???
WCW570	Jacksonville	MR	467.250 MHz Repeats 42.800 MHz to New Bern
WBB622	Otway	MR	457.050 MHz Repeats 42.800 MHz to New Bern
KLW438	New Bern	B	42.520 MHz, 42.620 MHz, 42.640 MHz
WAG81	Goldsboro	MR	467.200 MHz Repeats 42.800 MHz to New Bern
KLW438	Jacksonville	BR	42.520 MHz, 42.460 MHz

Control Station: Williamston — Base Call Name: "Williamston"

KIB895	*Williamston	B	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
		B	42.640 MHz, 155.190 MHz, 154.680 MHz, 154.920 MHz
KJB29	Williamston	L	154.830 MHz Control transmitter link to ??? site
KBJ29	Williamston	L	155.445 MHz Control transmitter link to ??? site
WAH262	Williamston	L	75.460 MHz Control transmitter link to ??? site
KIS874	Englehard	BR	42.620 MHz Remote base transmitter site
KIS740	Englehard	MR	72.020 MHz Repeats 42.780 MHz to Williamston
KIP77	Greenville	MR	72.020 MHz Repeats 42.780 MHz to Williamston
KID37	Rocky Mount	MR	73.340 MHz Repeats 42.340 MHz to Williamston
WGM597	Wilson	MR	457.250 MHz Repeats 42.??? MHz to ???
WSB26	Jackson	MR	72.620 MHz Repeats 42.780 MHz to Williamston

Control Station: Elizabethtown — Base Call Name: "E.town"

KIB897	*Elizabethtown	B	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
		B	42.640 MHz, 155.190 MHz, 154.680 MHz, 154.920 MHz
KEN44	Elizabethtown	L	72.100 MHz Control transmitter link to ??? site
WIQ27	Elizabethtown	L	462.200 MHz Control transmitter link to Kenansville site
WFK599	Elizabethtown	L	75.500 MHz Control transmitter link to ??? site
KNDJ420	Elizabethtown	L	457.050 MHz Control transmitter link to ??? site
WAC476	Laurinburg	MR	452.050 MHz Repeats 42.780 MHz to Elizabethtown
WIQ270	Kenansville	MR	462.200 MHz Repeats 42.??? MHz to Elizabethtown
WBU67	Kenansville	MR	467.200 MHz Repeats 42.780 MHz to Elizabethtown
KTH693	Kenansville	BR	42.520 MHz, 42.620 MHz
KIT57	Bolivia	MR	73.220 MHz Repeats 42.800 MHz to Elizabethtown
WYR320	Bolivia	BR	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
		BR	42.640 MHz repeater for Elizabethtown

Control Station: Wilmington — Base Call Name: "Wilmington"

KIB365	*Wilmington	B	42.520 MHz, 42.600 MHz, 42.620 MHz, 155.190 MHz
KIP75	Wilmington	MR	74.500 MHz Repeats 42.800 MHz to Elizabethtown
WFK629	Wilmington	?	75.500 MHz Use unknown
WIG337	Wilmington	?	453.000 MHz Use unknown

Control Station: Fayetteville Base Call Name: "Fayetteville"

KIA271	*Fayetteville	B	42.520 MHz, 42.600 MHz, 42.620 MHz, 155.190 MHz
KEN43	Fayetteville	MR	72.100 MHz, Use unknown
KIP85	Fayetteville	MR	457.050 MHz Repeats 42.660 MHz to E.town & Raleigh
WCM674	Fayetteville	MR	457.325 MHz Use unknown

Control Station: Raleigh Headquarters Base Call Name: "Raleigh"

KIB894	*Raleigh	B	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
		B	42.640 MHz, 155.190 MHz, 154.680 MHz, 154.920 MHz
KUN549	*Raleigh	B	42.520 MHz, 42.620 MHz, 42.640 MHz, 42.800 MHz
KIP305	*Raleigh	B	154.680 MHz, 155.190 MHz
WAP825	Raleigh	R	457.400 MHz Repeats 42.660 MHz to Raleigh
WAU633	Raleigh	L	452.400 MHz Control transmitter to 42.520 MHz Oxford
WGM598	Raleigh	L	452.250 MHz Control transmitter to 42.520 MHz Wilson
WGQ208	Raleigh	L	452.400 MHz Control transmitter to ??? site
WGM675	Raleigh	L	452.325 MHz Control transmitter to 42.520 MHz Fayettev.
WQM693	Raleigh	B	155.460 MHz, 155.790 MHz, 465.250 MHz (use unknown)
KTX626	Raleigh	B	155.790 MHz (use unknown)
KXL415	*Raleigh	B	42.520 MHz, 42.620 MHz, 42.640 MHz
KRF448	Raleigh	B	154.725 MHz, 155.610 MHz, 155.790 MHz (use unknown)
KCY680	Raleigh	PRB	154.680 MHz, 159.210 MHz Portable Command Post (154.680 MHz input / 159.210 MHz output) portable
WYK441	Raleigh	B	155.460 MHz, 159.150 MHz (use unknown)
KIK806	Raleigh	B	155.010 MHz (use unknown)
WGO207	Oxford	MR	457.400 MHz Repeats 42.800 MHz to Raleigh
KIP23	Oxford	MR	456.075 MHz Repeats 42.800 MHz to Raleigh
KID37	Rocky Mount	MR	73.340 MHz Repeats 42.780 MHz to Raleigh
WAC476	Laurinburg	MR	452.050 MHz Repeats 42.780 MHz to Raleigh
WAG81	Goldsboro	MR	467.200 MHz Repeats 42.780 MHz to Raleigh
KIP85	Fayetteville	MR	457.050 MHz Repeats 42.660 MHz to Raleigh
WGM674	Fayetteville	MR	457.325 MHz Repeats 42.700 MHz to Raleigh
KNBA658	Fayetteville	BR	42.520 MHz Low power base repeater for Raleigh
WGM597	Wilson	MR	457.250 MHz Repeats 42.700 MHz to Raleigh
KNAU499	Wilson	BR	42.520 MHz Low power base repeater for Raleigh
KNBC976	Oxford	BR	42.520 MHz Low power base repeater for Raleigh
KIA933	Statewide	PB	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.640 MHz
		PB	155.190 MHz, 154.680 MHz, 154.920 MHz, 42.560 MHz
		PB	(KIA933 is the call sign for the portable base station)

(Note: Remote bases shown above at Oxford, Wilson and Fayetteville, noted as operating on 42.500 MHz transmitter output frequency can be changed to 42.500 MHz, 42.600 MHz, 42.620 MHz, or 42.640 MHz by tone change from Raleigh on link control frequency.)

Control Station: Greensboro Base Call Name: "Greensboro"

KIB439	*Greensboro	B	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
		B	42.640 MHz, 155.190 MHz, 154.680 MHz, 154.920 MHz
KIZ54	Greensboro	L	451.075 MHz Control transmitter to Uwharrie (KIB438)
KIZ54	Greensboro	L	452.300 MHz Control transmitter to Uwharrie (KIB438)
KIB438	Uwharrie	RB	42.620 MHz, 42.640 MHz (Buck Mountain site)
KIL56	Uwharrie	MR	72.020 MHz Repeats 42.780 MHz to Greensboro
KGX43	Uwharrie	MR	72.860 MHz Repeats 42.760 MHz to Greensboro
KIZ34	Gap	MR	75.620 MHz Repeats 42.800 MHz to Greensboro
KWI820	Monroe	B	154.920 MHz Base to Greensboro station
KNDA836	Monroe	R	72.840 MHz (use unknown)

Control Station: Salisbury Base Call Name: "Salisbury"

KIH781	*Salisbury	B	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
			42.640 MHz, 155.190 MHz, 154.680 MHz, 154.920 MHz
KIL55	Salisbury	L	75.420 MHz Control transmitter link to ??? site
KIL55	Salisburg	L	75.460 MHz Control transmitter link to ??? site
KIL55	Salisbury	L	75.580 MHz Control transmitter link to ??? site
KIL55	Salisbury	L	75.660 MHz Control transmitter link to ??? site
KBG58	Salisbury	L	72.300 MHz Control transmitter link to ??? site
KBG58	Salisbury	L	73.500 MHz Control transmitter link to ??? site
KDG29	Gap	MR	75.620 MHz Repeats 42.780 MHz to Salisbury
KIB896	Moravian Falls	BR	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
		BR	42.640 MHz
KHM39	Moravian Falls	R	72.900 MHz Repeats 42.660 MHz to Salisbury
WCE931	Moravina Falls	?	957.150 MHz (use unknown)
WIA541	Moravian Falls	?	957.500 MHz (use unknown)
KIK701	Huntersville	BR	42.500 MHz, 42.640 MHz, 42.520 MHz, 42.620 MHz
??????	Huntersville	MR	72.500 MHz Repeats 42.700 MHz to Salisbury

Control Station: Newton — Base Call Name: "Newton"

KIT829	*Newton	B	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz
		B	42.620 MHz, 155.190 MHz
KYB908	Hickory	BR	42.520 MHz, 42.620 MHz, 42.640 MHz, 155.190 MHz
WJT83	Newton	??	72.300 MHz (use unknown)
WDG229	Newton	MR	72.500 MHz Repeats 42.700 MHz to bases
WIA540	Jefferson	??	953.900 MHz (use unknown, probably MR)
WCE932	Newton	??	953.550 MHz (use unknown)

Control Station: Asheville — Base Call Name: "Asheville"

KIA377	*Asheville	B	42.620 MHz (Swannanoa)
KIQ822	Asheville	BR	42.620 MHz, 155.190 MHz, 154.920 MHz (Black Mountain site)
KEL394	Bald Mountain	BR	42.620 MHz
KIB898	Mt. Mitchell	BR	42.620 MHz
KIB899	Waynesville	BR	42.620 MHz (Soco Gap site)
KQL720	Clyde	BR	42.620 MHz
KJZ36	Asheville	L	153.740 MHz, Controls 42.620 MHz at ???
KSB56	Asheville	L	451.075 MHz, Controls 42.620 MHz at Clyde
WAG80	Black Mountain	L	452.050 MHz, Controls 42.620 MHz at KIB899
KIB73	Asheville	L	462.200 MHz, Controls 42.620 MHz at KIB898
KBG59	Asheville	??	72.300 MHz & 72.500 MHz (Use unknown)
WAX591	Asheville	L	155.970 MHz (use unknown)
??????	Asheville	L	456.175 MHz (link to Bald Mtn site?)
KIQ96	Asheville	L	73.420 MHz (link to ??? site)
KBG60	Mt. Mitchell	MR	75.980 MHz Repeats 42.780 MHz to Asheville
KRD23	Asheville	L?	959.600 MHz (use unknown)
KRC40	Asheville	L?	956.600 MHz (use unknown)
KIB72	Waynesville	MR	74.500 MHz Repeats 42.780 MHz to Asheville
KDG29	Gap	MR	75.620 MHz Repeats 42.780 MHz to Asheville (Sauratown Mountain site)
KJZ37	Bald Mountain	MR	154.455 MHz Repeats 42.780 MHz to Asheville
KHT55	Mt. Mitchell	MR	467.200 MHz Repeats 42.780 MHz to Asheville
?????	Mt. Mitchell	MR	453.750 MHz Same as above, out of service??
KSB57	Clyde	MR	456.075 MHz Repeats 42.780 MHz to Asheville
WAG79	Waynesville	MR	457.050 MHz Repeats 42.780 MHz to Asheville
WGE21	Nr Franklin	MR	155.505 MHz Repeats 42.780 MHz to Asheville
WGR98	Asheville	L	456.175 MHz Controls Bald Mtn KEL394

Note* North Carolina State Highway Patrol portable command post has a small portable repeater. The repeater is used with walkie talkies for special assignments. The repeater input is 154.680 MHz and the output is 159.210 MHz. This unit is available for statewide use.

Keep in mind that all State Highway Patrol dispatch centers also monitor and dispatch for the Dept. of Corrections on 42.560 MHz.

License Applications have been filed by the State Highway Patrol for the following transmitters, mostly remote base repeaters, low power operations with limited coverage. Although the Oxford, Wilson, Fayetteville low power system is the only remote base system now in operation (and it is doubted that these will be placed in operation), the FCC data is listd for your information:

WXY370	Jefferson	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
WXR320	Bolivia	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
WQH327	Burnesville	42.620 MHz
WQH328	Marion	42.620 MHz
WQH329	Waynesville	42.620 MHz
WQH331	Asheville	42.620 MHz
WQH332	Bryson City	42.620 MHz
WQJ329	High Point	42.620 MHz, 42.640 MHz
	(Note: Not realistic because Greensboro/High Point cars are on 42.600 MHz now!)	
WQJ330	Reidsville	42.620 MHz, 42.640 MHz
WQJ332	Asheboro	42.620 MHz, 42.640 MHz
WQJ332	Burlington	42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
WQJ334	Conover	42.600 MHz, 42.640 MHz
WQJ335	Wilksboro	42.600 MHz
WQJ336	Statesville	42.600 MHz
WQJ337	Morganton	42.600 MHz, 42.640 MHz
WQJ338	Lenior	42.600 MHz, 42.640 MHz
WQM663	Roxboro	42.620 MHz, 42.640 MHz
WQP772	Goldbsoro	42.520 MHz, 42.620 MHz
WQP773	Whiteville	42.600 MHz, 42.620 MHz

Public Safety - South East continued

WQP774	Shelby	42.500 MHz, 42.640 MHz
WQP775	Monroe	42.500 MHz
WQP776	Charlotte	42.500 MHz
WQP777	Hamlet	42.500 MHz, 42.820 MHz..(?)
WQP778	Gastonia	42.500 MHz, 42.640 MHz
WQP779	Lumberton	42.600 MHz, 42.620 MHz
WQP780	Clinton	42.600 MHz, 42.620 MHz
WQP781	Wilmington	42.520 MHz, 42.600 MHz
WQP782	Jacksonville	42.520 MHz, 42.600 MHz
WQP783	Fayetteville	42.520 MHz, 42.600 MHz
WQP784	Kenansville	42.600 MHz, 42.600 MHz
WQP785	Roanoke Rapids	42.520 MHz, 42.620 MHz, 42.640 MHz
WQP786	Ahoskie	42.520 MHz, 42.620 MHz, 42.640 MHz
WQP787	Chocowinity	42.520 MHz, 42.620 MHz
WQP788	Greenville	42.520 MHz, 42.620 MHz
WQP790	Elizabeth City	42.520 MHz, 42.620 MHz, 42.640 MHz
WQP791	Kinston	42.520 MHz, 42.620 MHz, 42.640 MHz
WQP792	Durham	42.600 MHz, 42.620 MHz
WQP793	Raleigh	42.600 MHz, 42.620 MHz
WQP794	Wilson	42.520 MHz, 42.620 MHz
WQP795	Rocky Mount	42.520 MHz, 42.620 MHz
WQP796	Smithfield	42.520 MHz, 42.620 MHz
WQP797	Henderson	42.520 MHz, 42.600 MHz, 42.620 MHz
WQR934	Faith	42.500 MHz, 42.520 MHz, 42.620 MHz, 42.640 MHz
WRL606	Concord	42.520 MHz
WRL607	Lexington	42.520 MHz
WRU776	Elkin	42.520 MHz
WRU772	Albemarle	42.520 MHz
WRU778	Winston Salem	42.520 MHz
WSL823	Salisbury	42.320 MHz (Interesting single listing!)
KNEB501	Jackson	42.640 MHz
KNFZ700	Williamston	75.820 MHz (New link transmitter?)
KMAK328	Morehead City	42.520 MHz, 42.620 MHz, 42.640 MHz
KNCP230	Graham	42.840 MHz (?)

(These three are actually in use and link controlled to Raleigh)

KNBA658	Fayetteville	42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
KNAU499	Wilson	42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
KNBA658	Oxford	42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
KNDJ420	Laurinburg	42.500 MHz, 42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz
KNDJ420	Elizabethtown	457.050 MHz (New link control??)
KNAT696	Fayetteville	42.520 MHz, 42.600 MHz, 42.620 MHz, 42.640 MHz

(These are the latest new license applications:)

KIL55	Salisbury	75.420 MHz, 75.460 MHz, 75.580 MHz, 75.660 MHz
KNEJ782	Raleigh	155.190 MHz
WYK441	Raleigh	155.400 MHz, 159.150 MHz

FROM THE CAPTAIN'S DESK

UPCOMING RADIO SHOWS: JUNE 3RD the Ole Virginia Hams Hamfest will be held at Manassas, Virginia. JUNE 3RD is shown also as the date for the Tri-State ARA Hamfest in Huntington, West Virginia. And, JUNE 16 & 17 are the dates for the HAMVENTION in Atlanta. Ask any local amateur radio operator for details, or just monitor the local repeaters for information!

SPECIAL REQUEST: I will be updating the State Police and Highway Patrols of Virginia, West Virginia, South Carolina, Georgia and Florida in coming months! Wouldn't it be nice to have detailed information on these states like what you have just read on the NCSHP! If you have or can get this detailed data on any of these departments, please drop me a note!! Let's not just have a listing of base channels, but a detailed article into the system and what makes it work! Is there anyone out there who can get the communications manual on these or other state radio systems?

Thanks again to those members who responded to the reader survey and to those who have submitted material for this column. This is a club and membership participation is necessary. This column is a result of that effort! What have you listened to this month? 73s Bill (FL-137).

PUBLIC SAFETY — SOUTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas:

Ken Pehl, 108 E. Centre St., Fredericksburg, Texas 78624.

Hello, everyone. Welcome to a very special edition of the RCMA Newsletter and a very special edition of the "Public Safety-South Central" column. I have been informed by our managing editor that this issue is a very special landmark in the history of the RCMA. This is the 100th issue of the RCMA Newsletter. In noting this rather special occasion, I would like to say I am very proud to be a participant in this issue. I have been with the RCMA since 1977 and have been your regional editor since 1981. The growth of the RCMA Newsletter from the time I first joined until now has been nothing short of remarkable. When I first joined the RCMA I purchased a complete set of back issues. In looking back from issue #1 until now, the change is even more remarkable. It is like comparing a Model "A" car to the Space Shuttle in the methods of transportation. The advancement is that dramatic and startling. I would like to congratulate the RCMA and its directors, staff, and, most importantly, the members for making the RCMA what it is today.

Last month I promised you readers a very interesting article on the University of Texas at Austin radio system. It was not meant to be delayed but circumstances in both the author's schedule and this editor's work schedule precluded our collaborating on preparing the article for publication. As fate would have it, this article is rather timely for this issue, since the University of Texas just finished celebrating their 100 years as a Texas tradition this past year. So for two "100's" to go together (I could not resist bringing that up), let's turn it over to Robert Barker (TX-76) and his article on the University of Texas Radio Systems. Robert, incidently, is a freshman student at U.T.

UNIVERSITY OF TEXAS AT AUSTIN RADIO SYSTEMS
by Robert Barker (TX-76)

INTRO: The University of Texas at Austin is quickly becoming one of the top ten universities in the nation. The U.T. System has other U.T. branches in other Texas cities. The Austin campus consists of over 100 buildings. The student body is approximately 50,000. Most of the campus is located in central Austin just north of downtown; however, university land is scattered throughout the city. The campus is, in short, a mini-city. They generate their own power and thus run independently from the city of Austin's generators. In a recent power outage, UT had power while the remainder of Austin was dark. In the event of an emergency, the UT power system could supply Austin for approximately 10 minutes of time. The radio facilities used by U.T. are thus very much like any city government consisting of a law enforcement dept. and a maintenance dept., which in turn is comprised of several sub-departments. A closer look at each of these functions follows in this report.

UTPD: Security for the UT/Austin campus is provided by the U.T. Police Dept. They are in charge of patrolling the main campus as well as any other university land in the city. This includes such places as the married student housing, the intramural fields, and the chancellor's house. Traffic control is another function with which they are charged, since, during the daytime, only those with proper parking permits are allowed to drive on campus.

UTPD security personnel consist of one of two types: Officers and Guards. Officers are fully authorized, licensed peace officers, meaning they have full police power authority, allowing them to carry a side arm and have arrest authority. UTPD officers are uniformed. The Guards are uniformed as well, but carry no side arm, as they are not licensed peace officers; however, they do carry tear gas. They do have the authority to issue citations, which they do frequently. Guards are normally seen on foot patrol, working the various traffic control stations and situations. Officers are normally seen in their patrol vehicles, working law enforcement situations.

The campus is not that large, so most of the patrolling is done on foot. For that reason UTPD has over 150 hand-held units. Most of the time, most of the hand-helds are in their chargers, but during special events, such as a football game, they all get to see action. Some are then used by officers getting overtime pay and some are issued to medical personnel.

For security patrol purposes, the campus is divided into four districts. Each district is assigned one of the four patrol cars used by UTPD. The patrol cars, which are white in color, are equipped with standard police equipment, such as lights and sirens, a four channel radio, and some light duty weapons. In addition, UTPD has a supervisor's unit for the patrol Sgt. This unit is blue. UTPD also utilizes other vehicles, including some station wagons and trucks, but these are not radio equipped.

UTPD RADIO CHANNELS: The UTPD base dispatcher utilizes a four channel control console but has only two channels for UTPD communications. Ch 1, 155.580, is the main dispatch channel. Ch 2, 155.820, is the secondary dispatch channel. The patrol cars are capable of transmitting on four channels--ch 1 & ch 2 with channels 3 & 4 equipped for the standard Texas law enforcement "inter-city" frequencies--154.950 tx/155.370 rx. (The inter-city channels are for inter-agency contacts only. For example, UTPD mobiles to Austin PD, Travis County Sheriff Dept., or the Texas Dept of Public Safety.) UTPD base does not have inter-city capability. The UTPD main dispatch channel, 155.580, is a repeater. The repeater antenna is located atop Belmont Hall (the football stadium). (Belmont Hall has classrooms and offices beneath the stands.) The dispatcher's office is located in the stadium and is connected to the repeater transmitter via phone line, as they transmit direct on the repeater output frequency and monitor the repeater input chanel, 154.770. (Base/mobile relay combination.) The secondary channel, ch 2--155.820, is used simplex. The antenna for this frequency is located atop the U.T. Tower. Again the transmitter site is connected by phone line to the dispatching room. Units 701--720 are the UTPD Officer patrol units. The 100's series of units are the UT Guards.

During football games, all involved use ch 1 for their primary communications, while the normal campus patrol will use ch 2 for their communications. During concerts at the Frank Erwin Center, the Center's security (composed of officers on overtime) use ch 2 for their primary operations, while campus patrol uses ch 1, like normal. The medical personnel share the same frequency with the security for whatever function they are at.

As a matter of interest, the UTPD dispatching room has an older radio console/transmitter set that also operates on 155.820 (connected to a second transmitter and antenna also atop the UT Tower). This second transmitter is very, very old. It was in use back when the Austin PD was still on 37.180 (at least 20 years ago). That is how old this set is. It is still functional but it is no longer used. When the newer four channel console was installed some years ago, no one was willing to transport the older set away, so it remained. The UTPD originally dispatched on one channel--present day ch 2--using this old set. Another portion of the "antique" radio equipment collection is a set that was used to monitor the Austin Fire Dept on the VHF-high band. At one time in the Austin FD dispatch room there was a counterpart to this set that was tuned to the UTPD channel. Should an emergency have come up, AFD and UTPD could cross-talk communicate. Since the Austin FD changed to the UHF band, this set is now useless and it, along with the original UTPD transmitter, are now sitting there collecting dust. It is possible that in time, UTPD and the Austin FD will once again set up a cross-channel communication system, but this is merely speculation on my part.

Security and fire alarms are installed in a majority of the buildings on campus. Even the underground tunnels, which carry electrical lines and water pipes from building to building, have alarms. The alarm central is in the UTPD dispatch room. For this reason, UTPD base is capable of transmitting on the UT Maintenance channel (see below). Also within the UTPD dispatching room is the phone center for the Texas Crimestopper's 800 phone number program. The Governor of Texas wanted the 800 system to be centrally located in Texas. This is a statewide program for parties having information on crimes but wishing to remain anonymous, wherein they may call in and give their information. A state employee is paid to answer this phone bank, take the information, and then is responsible for relaying the information to the appropriate law enforcement agency.

Incidently, the UTPD dispatch room has a control box for changing the color of the lights atop the UT Tower. When a UT team wins a game, the lights are switched to all orange (the UT Orange, that is). A tie is signified by half orange, half white lights. Normal conditions are simply white. (I guess a loss isn't counted. HA, HA)

FIRE PROTECTION: UT relies upon the city of Austin FD for fire fighting protection. UT has a safety office in charge of making sure fire extinguishers are filled,

check fire alarms for proper operation, and just about anything else that pertains to safety matters. The safety office is in charge of the maps for the tunnel system and the floor plans to all the buildings, etc., updating the same as needed. The safety office is notified of any and all fires--no matter how insignificant. They determine the cause and any possible corrections to take to prevent future mishaps. The safety office personnel have no access to radios.

MAINTENANCE: The UT Maintenance Dept. consists of many departments, such as plumbing, electrical, and communications. Each department has their own base radio. Each basically dispatches their own department through the common maintenance repeater. The output frequency is 153.925 (input frequency is 155.895). The UTPD dispatcher can also transmit on the maintenance channel as the maintenance crews service the building alarms. The dispatchers' control consoles are connected to the transmitter site by phone line. The transmitter site is Belmont Hall, the same location as UTPD's repeater. In fact, according to information I have been given, the UTPD transmitter and the UT Maintenance repeater share the very same antenna! Recently, the maintenance dept received permission to use 158.925 simplex for repeater talk-a-round. These are for the hand-held units, mostly. Since the base is wired directly to the transmitter and monitors only the repeater input channel, the base dispatchers can not hear any transmissions on the repeater output channel (repeater talk-a-round).

PAGING: UT employees are paged on 154.040. A wide range of different department employees are issued for contacts. This paging system is accessed by and through the regular phone network. By dialing the proper extension number and then a three digit pager code, you will hear three "beeps" and you are on the air to give your message. The antenna for the paging service is located atop the UT Tower.

PERFORMING ARTS CENTER: This is refered to as "PAC". And yes, folks, they do have radios. The frequency is 453.950...surprise...surprise. This frequency was originally thought to be used at the Frank Erwin Center but it is not. The earlier report on this frequency is in error. This channel is ID'ed by an automatic morse code ID'er every 30 minutes. Transmissions consist mostly of women talking to each other using some rather unusual names (ex., "Magenta", "Imperial Leader"). Common terms are "the green room" and "stage lights", giving the impression the radios are for director's cueing and commands.

FRANK ERWIN CENTER: This is sometimes nicknamed "The Drum". Very little is known about the Center's radio system, since they do not use it much. No call-signs are ever used. For the latter reason, the UT Maintenance has reportedly refused to service any of their radios. Security at the Center's functions are normally provided by overtime paid UTPD officers and their operations are on the UTPD channels (see above discussion).

Note on Belmont Hall/Stadium: Some time ago the university wanted to enlarge the stadium by adding an upper deck of seating to the existing stands. In order to use state money to build the deck they had to find a way of putting classrooms into the deal, as state funds could be used for classroom construction but not for things like upper decks. The answer was very simple--build a 10 story building housing different classrooms and offices, then build the upper deck atop that! It is is in this building that UTPD headquarters is located. In fact, they occupy several rooms...rooms for the dispatch, CID, Captains, etc.

Summarizing the frequencies discussed within this article for easy reference:

UTPD Ch 1 -- 155.580 R (154.770 in) KVN 686 -- UTPD Main dispatch
UTPD Ch 2 -- 155.820 S -- KLA 635 -- Secondary dispatch and car-to-car ch.
Ch 3 & 4 -- inter-city ch's -- cars only
UT Maintenance -- Ch ? -- 158.925 R (155.895 in) WXP 568 -- Maint. dept dispatch
Ch ? -- 158.925 Simplex -- HT's talk- a - round
UT/PAC -- 453.950 R WZJ 305 -- plays and symphonies
UT/Erwin Center -- 453.650 R (licensed as KMA 522) -- concerts, basketball games, etc.
UT/paging -- 154.040 -- P -- KCW 701 -- employee paging

Thank you, Robert, for that excellent contribution to this column. All of our readers appreciate your taking the time from your studies to research the matter among your busy and, if I know what I am talking about, your frantic schedule as a student. The readers may blame this editor for any typing errors in the article as I typed the article on behalf of Robert.

Public Safety - South Central continued

From RICHARD, TX-43: Rich continues to do some rather extensive research into various FCC licenses granted to the State of Texas and the specific state agency operating under those licenses. Rich passes along these notes on the Inter-city mobile channel, 154.950, state licenses:

KA 2686 -- DPS
KA 44365 -- State Dept of Highways & Public Transportation
KA 44402 -- TX A & I University
KA 90122 -- Dept of Human Resources
KA 92589 -- TX Railroad Commission
KB 21955 -- Comptroller of Public Accts.
KC 2106 -- TX Dept of Parks & Wildlife
KC 5275 -- Adjutant General's Office
KE 7524 -- State Health Dept
KT 6533 -- TX A & M University
KX 7841 -- TX Alcoholic Beverage Comm.
KT 6608 -- TX Dept of Corrections
KU 3700 -- TX Youth Council
KV 9291 -- TX Turnpike Authority

Rich, as always, it is good to have input from you. This is certainly a handy reference. Since 154.950 is reserved for inter-agency use, Rich believes that all the agencies must have their own radio system. Obviously some agencies do have their own communication system, some of which have been covered in the past in this column. But there are some agencies which may or may not have a radio system of their own and of which we are totally uninformed. We are anxious to know more. If anyone in the readership knows something about any of the above listed agencies' radio systems and it has not been covered before, please write in. Even if the system has been covered, please write in anyway so as to compare what notes we do have on file with whatever you might possess.

From MARVIN, (TX-2): For all the fire buffs out there, Marvin provided an apparatus roster of the Beaumont Fire Dept.:

BEAUMONT FIRE DEPT APPARATUS ROSTER

Unit 1 79 GMC Carry-all (Chief)
Car 40 76 GMC Carry-all
Car 41 74 GMC Carry-all
Car 51 80 GMC Carry-all
Car 52 82 Chev suburban
Car 53 82 Chev suburban
Car 54 80 Ford station wagon
Car 56 78 Chev suburban
Car 58 75 Chev suburban
Car 59 78 Pontiac station wagon

Engines (Engine # & pumper capacity)

Engine 1 82 Mack - 1500 gpm
Engine 2 75 Ward LaFrance - 1250 gpm
Engine 3 76 American LaFrance - 1250 gpm
Engine 4 80 Maxim - 1500 gpm
Engine 5 82 Mack - 1500 gpm
Engine 6 81 American LaFrance - 1500 gpm
Engine 7 77 American LaFrance - 1250 gpm
Engine 8 80 American LaFrance - 1500 gpm
Engine 9 81 American LaFrance - 1500 gpm
Engine 10 70 Ward LaFrance - 1000 gpm
Engine 11 80 American LaFrance - 1500 gpm
Engine 12 82 Mack - 1500 gpm
Engine 20 69 Ward LaFrance - 1000 gpm (FOAM)
Engine 21 66 Seagraves - 750 gpm

Reserve Engines -- capacity gpm

Reserve Engine 1 60 Seagraves - 750
Reserve Engine 2 63 Seagraves - 750
Reserve Engine 4 53 Seagraves - 750
Reserve Engine 6 60 Seagraves - 750
Reserve Engine 7 60 Seagraves - 750
Reserve Engine 8 63 Seagraves - 750
Reserve Engine 9 67 Seagraves - 1000

Snorkels

Snorkel 1 66 FWD Chassis- 85 ft Pitman snorkel
Snorkel 7 71 Snorkel-65 ft Model 65-SFF-A-AL, custom chassis model A-1834-3

LADDER

Ladder Truck 3 82 American LaFrance -- 100 ft
Ladder Truck 4 79 American LaFrance -- 100 ft
Reserve Ladder 3 55 American LaFrance -- 85 ft

Thank you, Marvin. I just know the fire buffs out there enjoyed this input. Thanks for sharing this with us.

From BRAD, (OH-138): Brad, a consistently regular contributor to this column, provided some more interesting tidbits from the cowboy city and nearby vacinity.
--Ft Worth PD already has, or will have very shortly the computerized Mobile Display Terminals for 10-28 and 10-29 computer checks via digital signals direct from the vehicle to the main computer in the PD station. In addition, the MDT's will allow routine status codes (ie, 10-7 and 10-8, etc.) to be handled by the digital process, in an attempt to cut back on the radio congestion.
--Reference the question on Meacham Field Security from Brad in the May column, Brad now advises Meacham Field Security units have FWPD radios (using FWPD Ch 5 mostly). At the present time, Brad is uncertain if the guards are a detachment of the FWPD or if they are an entity of their own.

Public Safety - South Central continued

--In the April 84 issue Brad noted Tarrant Co. S.O. used the same 10-codes as the Texas DPS (see Feb 84 issue for the DPS code list). Brad advises that TCSO uses 2 additional codes that are not on the DPS list--10-37= Suspicious Person; and 10-38= Suspicious Car.

--Brad has confirmed 482.6125 WAU 952 being used by Texas Christian College (TCU).

--Gold Star Ambulance Service/Arlington - 45.96, 46.04 KNFG 746

Apollo Ambulance Service/Irving - 45.92 KNDJ 368

(Note: The above two are licensed in the microfiche but as of this report, they have not been confirmed active on the air.)

Am-Care Ambulance/Dallas - 464.625 KNCD 748 (confirmed)

Central Ambulance/Dallas - 461.500 WSO 400 (confirmed)

--Brad has found some rather unusual frequencies licensed to several area hospitals in his microfiche files and he wonders if anyone has heard these active and, if so, what they are used for:

St Joseph's Hospital/Ft Worth: KY 6295	460.6625	460.7875
	460.7375	460.8125
	460.7625	460.8375
Arlington Community Hospital: KA 73978	460.6625	460.7875
	460.7125	460.8375
	460.7375	

(Editor's Note: It seems to me that I have heard something about these split channels being available to hospitals for remote telemetry use. Off the top of my head I can not pinpoint where that may have originated. Perhaps our FCC Topics editor can give the correct information, if he has it at the tip of his fingers.)

From JERRY, (AL-14): Jerry writes in to give us some further info on the KIY 300 question from a few months ago. (Editor's note: This single question has produced a very pleasing response from the readership. It goes to show the power of our vastly dispersed members to help each other out with the unknown puzzles of our hobby.) Jerry informs us the Mobile County, Alabama Sheriff Dept uses 158.730 mostly as a car to car channel. Their main dispatching channel is 158.350. The base license for this latter frequency is KIY 300; however, the base can transmit on 158.730 as well and uses the callsign KIY 300, even though the callsign is not the proper one for that frequency, according to Jerry. Another point of interest from Jerry--The Mississippi Truck Weighing Scales located near Kewanee, Miss. are equipped with the frequencies 155.460 (their primary channel), 155.490, and 155.010 (the Alabama state net channel). The scales are located approximately 1 mile inside the Mississippi state line along both sides of I59 & 20 and along Highway 80. The above stations are designated units H-98, H-99, and H-100, with callsigns of KBT 232, KUI 504, and KUI 554. Jerry is unsure of which station is at which location. In recent weeks Jerry has noted a rather marked decrease in radio activity from these stations. Jerry also notes many agencies in his area are equipped with their adjacent area's primary channels. For example, Uniontown uses 155.700, the Perry County primary. Cuba, AL uses 155.040 and 155.655, the Sumter County and York, AL channels.

From JIM, MS-6: Jim also wrote to answer the 158.730/KIY 300 question from a few months back. Jim states he intended to get an answer to the question to us, but never got around to it until now. Jim advises if anyone is interested, the Mobile County (AL) Sheriff uses 158.850 as a repeater output channel and it is used as a car-to-car channel. They quite often switch their main channel dispatch to 158.850 when they get too much skip from Slidell (La) PD on their primary, 158.730.

(Editor's Note: This is just the opposite way around from the report Jerry sent. ((See above)) I suspect one of these reports signifies a last minute change in the way Mobile County Sheriff Dept channels are used. Due to the rather, at times, intense tropo skip both these agencies experience, I suspect Mobile Co. had to switch their usage of channels. Since both of these reports were received at approximately the same time, I can not determine which actually represents the latest case. Stay tuned for further reports on this situation. ...On the topic of tropo skip, the Gulf of Mexico is rather famous for producing this condition, judging from the reports in various amateur radio publications on the great "Gulf induced" VHF and UHF band openings.)

Jim also notes some updates to his article on the Mississippi Highway Patrol in the December 1981 column. Patrolmen are now called "State Troopers" and the patrol districts are now called "Troops". District 1 became "Troop C", District 2 became "Troop D", etc. The letters designating the Troops now correspond with the letter prefixes of the mobile units in the old Districts.

Public Safety - South Central continued

Jim also asks for some help from the Louisiana members. There is a lot of traffic on 154.445, especially around 0800 and 2000 hours when they run a radio check involving a number of units in what seems to be several towns. Most of the units are repeated, but some are not. Jim guesses that it is some kind of volunteer fire dept net and from some of the names of towns believes it is in the state of Louisiana. Jim has been unable to catch any callsigns. He would like to know what area it's in and more about it. Can anyone help?

Thanks, Jim, for telling us all about the changes to your MS Highway Patrol article. It's a pleasure to hear from you again. From now on, keep in touch more often.

And with this very quality packed column we need to close this special anniversary edition of the column. Please remember the Texas RCMA Convention coming up in July. See last month's column for details on when, where, how to get there, etc. Hope at least some of you decide to come out for the event. We shall see you next month as we start on the second hundred editions. Thanks to all contributors this month.

PUBLIC SAFETY — NORTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — New England states, New York, Pennsylvania, New Jersey, Maryland, Delaware, and District of Columbia:

Richard Barnett, P.O. Box 428, Newton Highlands, MA 02161.

CONNECTICUT UPDATES #2: (3/1/84)

ANSONIA
Fire 46.220
ASHFORD
Fire 33.100
BRIDGEPORT
Health Center 155.775
Connecticut Sheriff's Department: 151.535, 465.1875, 465.2625 (also for Bethany & Colchester)
BRISTOL
Capitol County Ambulance 155.280
COLCHESTER
State E.M.S. Network 155.340
Public Works 45.640
CONNECTICUT
State Sheriff's Dept. 151.355
State Police 159.150
CROMWELL
Police -base 45.500
Police -mobile 154.710
DEEP RIVER
Ambulance 46.040
EAST HADDAM
Highway Department 46.580
EAST HARTFORD
Police 462.600
Trinity Ambulance Service 461.450
Board of Education 154.085
Alarm Room News -616 Cntrl 461.275
EAST HAVEN
Civil Preparedness 153.800
Conn. Chaircar 46.000
EASTON
Police 159.15, 158.745, 154.040
ESSEX
Civil Preparedness 45.760
FALLS VILLAGE
Highway Department 151.100
GROTON
Fire Alarm 155.025
State E.M.S. Network 155.340
HADDAM
Fire 46.180
Civil Preparedness 153.8, 453.975
HAMDEN
Public Works 155.880
Eli Whitney School 155.715
HARTFORD
Future Police 860.7625/ 815.7625
860.4375/ 815.4375
856.4375/ 811.4375
856.7625/ 811.7625
Blue Hills Hospital 453.250
Housing Authority 453.375
Red Cross 46.040
Maple Hill Ambulance 155.355
Board of Education 453.850
HEBRON
Public Works 153.875
LITCHFIELD
Highway Dept. 151.040 & 158.895
Rescue, Inc. 46.040
LYME
Highway Dept. 33.060
Lyme Dispatch Center 33.90,33.960
MANSFIELD
Civil Prep. 153.935, 153.965
MARLBOROUGH
Police -base 154.800
Police -mobile 154.300
Public Works 154.025
MERIDEN
Hunter's Ambulance 35.640
Record-Journal News 464.900
MONTVILLE
Highway Dept. 37.920
NEW BRITAIN
Board of Education 155.145
NEW CANAAN
Volunteer Ambulance Corp. 45.920
NEW HARTFORD
Public Works 155.895
NEW HAVEN
Traffic Authority 37.400
NEW LONDON
American Legion Ambulance 155.280
Board of Education 156.015
NEWINGTON
First Responders 154.515
NORWALK
Board of Education 151.685
NORWICH
American Ambulance Svc. 155.220
OLD LYME
Highway Dept. 159.045
PLAINFIELD
Police 453.850
POMFRET
Public Works 45.080
ROCKY HILL
Police 458.500, 453.925
Fire 453.575
Vets Home & Hospital 153.860
Vets Home & Hospital 153.755
ROXBURY
Highway Department 156.045
SALEM
Public Works 155.055
SEYMOUR
Fire 45.200
SIMSBURY
Highway Department 156.060
SOMERS
Public Works 156.015
SOUTH WINDSOR
Public Works 45.240
STRATFORD
Civil Preparedness 153.755
TOLLAND
Police 154.740, 158.910
County Mutual Aid 155.340
TORRINGTON
Para-Med Ambulance 155.205,155.34
TRUMBULL
Police 857.2625/ 812.2625
WARREN
Public Works 154.980
WASHINGTON
Public Works 153.920, 158.775
WATERBURY
Highway Department 155.085
WATERTOWN
Watertown Rescue, Inc. 37.980
WEST HARTFORD
UConn Police 39.820
WESTBROOK
Civil Preparedness 153.785
State E.M.S. Network 155.340
WILLIMANTIC
Switchboard Dispatch 33.720
WILTON
Public Works 45.480
Civil Preparedness 153.755
WINDSOR
Fire 453.800
Police (P.W.?) 453.475
WOODBRIDGE
Board of Education 155.715

Check out the Scanner Master Massachusetts and New York Guides!!

Ask your local dealer or write for info from Scanner Master -- Post Office Box 428 Newton Highlands, MA 02161

PUBLIC SAFETY - DELAWARE VALLEY

This month we have an in-depth profile of police comunications in Montgomery County, Pennsylvania. This article was submitted by John (PA-035).

MONTGOMERY COUNTY POLICE RADIO

There are 38 townships and 24 boroughs in Montgomery County. All but 9 of the 62 local governments employ a police department. The nine that are not protected by their own department are policed by the Pennsylvania State Police, Troop K, from the Limerick Barracks.

Most of the townships in eastern Montgomery County operate their own police radio systems - mainly because these localities have larger police departments - and higher volumes of radio traffic than the townships and boroughs in central and western Montgomery County. Townships and boroughs that do not operate their own communications systems are dispatched by the Montgomery County Communications Center. The center operates a three channel system, with receivers located in Upper Dublin Township, Lower Providence Township and Green Lane Borough. A "voting" system picks the best transmit/receive location for communications with the various units.

Channel one is a two frequency duplex channel, with base transmissions on 45.46 MHz and mobile transmissions on 45.34 MHz; Channel one is used as the primary dispatch channel.

Channel two is a simplex channel - 45.26 MHz and is used for car to car communications.

Channel three is also a simplex channel - 45.78 MHz and is used as a "data" channel, for vehicle & operator information, etc.

Hand held radios are built into the mobile radio units - these portable radios are used for communications when the officer is out of his (or her) vehicle. These portable radios operate on 155.790 MHz. They may operate in a simplex mode (for communications between hand held radios) or the officer may turn on a repeater in the car - which repeats transmissions from the hand-held radio on channel one.

The communications center has assigned a number to each township and borough in the county. Departments dispatched by the county use this two digit number for identification: i.e. 57-1 ("Fifty Seven One") would be Hatfield Boro Police Department Car #1. A few small police departments in the county have gotten together and formed regional dispatch centers - where several departments are dispatched by one department. For example - the Lansdale Boro Police Radio system dispatches five local police departments. It should also be noted that several local police departments that have their own comnmunications systems - also have their patrol cars equipped with county radios.

The Montgomery County Communications Center also dispatches for two other county law enforcement units - the County Sheriff's Office and the County Detectives Unit. The Sheriff's office and Detective units operate on all three channels - and the detectives also have a channel exclusively for their use - 45.38 MHz. The Sheriff's office is responsible for County Court protection and warrant service; the Detective Unit is used to investigate major county cases being handled by the District Attorney. Most local police departments have their own detective units to handle local criminal investigations.

Location	Station	Disp. By	Disp Freq.	F2	F3
Abington	29	Abington	39.18		
Ambler	43	County	**	**	155.115

Public Safety - North East continued

Bridgeport	54	County	**	**	
Bryn Athyn	27	County	**	**	
Cheltenham	26	Cheltenham	158.850	158.970	
Collegeville	72	County	**	**	
Douglass	91	County	**	**	
East Greenville	83	County	**	**	
East Norriton	48	County	**	**	
Franconia	63	County	**	**	
Green Lane	77	County	**	**	
Hatboro	37	Hatboro	39.08		
Hatfield Boro	57	Lansdale	155.640		
Hatfield Twp.	55	Lansdale	155.640	154.115	
Horsham	39	Horsham	45.58	45.42	
Jenkintown	33	County	**	**	39.14
Lansdale	53	Lansdale	155.640		
Limerick	84	County	**	**	
Lower Frederick	73	State PD	*	*	
Lower Gwynedd	45	County	155.640	155.865	
Lower Merion	34	Lower Merion	460.275		158.730
Lower Moreland	25	Lwr.Moreland	39.44	39.28	
Lower Pottsgrove	88	County	**	**	
Lower Providence	66	County	**	**	
Lower Salford	61	County	**	**	
Marlborough	79	County	**	**	
Montgomery	47	County	**	154.995	
Narberth	36	Lwr. Merion	460.275		
New Hanover	89	County	**	**	
Norristown	52	Norristown	501.0625	501.1125	500.9875
North Wales	49	County	**	**	
Pennsburg	83	County	**	**	
Perkiomen	76	State PD	*	*	
Plymouth	44	County	**	**	
Pottstown	94	Pottstown	45.94	45.82	
Red Hill	83	County	**	**	
Rockledge	31	County	**	**	
Royersford	86	County	**	**	
Salford	69	State PD	*	*	
Schwenksville	82	County	**	**	
Skippack	78	State PD	*	*	
Souderton	56	County	**	**	
Springfield	28	Springfield	154.845	158.790	
Telford	67	County	**	**	
Towamencin	59	Lansdale	155.640	154.965	
Trappe	74	State PD	*	*	
Upper Dublin	41	Upper Dublin	36.36	39.50	
Upper Frederick	75	State PD	*	*	
Upper Gwynedd	51	Lansdale	155.640	154.980	
Upper Hanover	87	State PD	*	*	
Upper Merion	56	Upr. Merion	154.815		
Upper Moreland	35	Upr. Moreland	39.28	39.34	
Upper Perk. Dist.	83	County	**	**	
Upper Pottsgrove	92	County	**	**	
Upper Salford	71	State PD	*	*	
W. Conshohocken	38	County	**	**	
W. Norriton	62	County	**	**	
W. Pottsgrove	96	County	**	**	
Whitemarsh	32	Whitemarsh	45.40		
Whitpain	46	County	**	**	
Worcester	64	State PD	*	*	

NOTES: ** County System: F1 45.46 Base>Car 45.34 Car>Base
F2 45.26 Car>Car
F3 45.78 Data/Info.

* Pennsylvania State Police/Limerick Barracks
Base>Car 155.670 Car>Base 155.910
Car>Car 154.755

The departments of East Greenville, Pennsburg and Red Hill have been combined into the "Upper Perk(iomen) Police District" - dispatched by the county as station 83.

Lansdale police radio dispatches five police departments:

Lansdale Borough
Hatfield Borough
Hatfield Twp.
Upper Gwynedd Twp.
Towamencin Twp.

(Please excuse the duplication of APCO listings. This report was prepared before the new rule was instituted.)

10 Codes - Montgomery County

10-0	Received	10-50	Accident (F,PI,PD)*
10-1	Poor Copy -Change Location	10-51	Wrecker Needed
10-2	Signal Good	10-52	Ambulance Needed
10-3	Stop Transmitting	10-53	Road Blocked
10-4	Acknowledgement	10-54	Livestock on Road
10-5	Relay	10-55	Intox. Driver
10-6	Busy - Stand By	10-56	Intox. Pedestrian
10-7	Out of Service	10-57	Hit & Run(F,PI,PD)
10-8	In Service	10-58	Direct Traffic
10-9	Repeat	10-59	Convoy/Escort
10-10	Fight In progress*	10-60	Squad in vicinity
10-11	Dog Case	10-61	Personel in Area
10-12	Stand By	10-62	Reply to Msg.
10-13	Weather - Road Rpt.	10-63	Prepare to Copy
10-14	Prowler Report	10-64	Message for Delivery
10-15	Civil Disturbance*	10-65	Net Message
10-16	Domestic Problem*	10-66	Message Cancellation
10-17	Meet Complaintant	10-67	Clear for 10-65
10-18	Complete Quickly	10-68	Dispatch Info.
10-19	Return to...	10-69	Message Received
10-20	Location	10-70	Fire Alarm*
10-21	Call by Phone	10-71	Advise nature/Fire
10-22	Disregard	10-72	Report prog./Fire
10-23	Arrived at Scene	10-73	Smoke Report
10-24	Assignment Complete	10-74	Negative
10-25	Meet...	10-75	In Contact with
10-26	Detaining Subj, Exped.	10-76	En Route
10-27	Drivers Lic. Info	10-77	ETA
10-28	Vehicle Regist. Info	10-78	Need Assistance
10-29	Check for Wanted	10-79	Notify Coroner
10-30	Illegal Radio Use	10-80	Chase in Prog.
10-31	Crime in Progress*	10-81	Breathalizer Rpt.
10-32	Man w/ Gun*	10-82	Reserve Lodging
10-33	Emergency	10-83	Work School Xing
10-34	Riot*	10-84	If meet - advise ETA
10-35	Major Crime Alert	10-85	Delayed due to
10-36	Correct Time	10-86	Officer on Duty
10-37	Invest. Susp. Veh.	10-87	Pickup Checks
10-38	Stopping Susp. Veh.	10-88	Advise Phone #
10-39	Urgent: lights/siren	10-89	Bomb Threat
10-40	Silent: no lights/siren	10-90	Security Alarm*
10-41	Beginning Tour	10-91	Pick up Prisoner
10-42	Ending Tour	10-92	Improp. Parking
10-43	Information	10-93	Blockade
10-44	Req. To leave ptl.	10-94	Drag Racing
10-45	Animal Carcass	10-95	Prisoner in custody
10-46	Disabled vehicle	10-96	Mental Patient
10-47	Emx. Road Repair	10-97	Radio Check
10-48	Tfc. Stnd. Repair	10-98	Prison Break
10-49	Tfc. Light out	10-99	Wanted/Stolen

* This code activates computer assisted dispatch timer

Again - ANY input to this section is welcomed, and questions, contributions and comments should be sent to:

Tim Leber
Post Office Box 27757
Philadelphia, Pennsylvania 19118

MARYLAND (from Alan MD-069):

Sussex County Fire & Ambulance 10-Codes -differences from APCO list-

10-01	Situation under control
10-02	Arriving at scene
10-03	Go Ahead w/message
10-10	Accident PD, PI, H&R
10-11	Second fire alarm received in district
10-12	Request assistance at headquarters or fire station
10-14	Convoy or escort
10-15	Prisoner in custody
10-16	Pick up prisoner at
10-17	Meal stop or send coffee and sandwiches to scene
10-23	Direct traffic at
10-24	Send assistance to scene
10-24A	Assist
10-25	E.T.A.
10-26	Advise operators of
10-26A	Record of violations/traffic
10-26B	Record of violations/criminal
10-27	Notify appropriate police agncy.
10-29N	Negative on wanted
10-29P	Positive on wanted
10-31	Meet complaintant at
10-32	Complaint (to be suffixed alphabetically)
10-33	Parking violations
10-33A	Disabled vehicle (location)
10-34	Prepare to make copy
10-35	Confidential information
10-37	Advise magistrate's court open
10-37N	Not open
10-38	Magistrate available
10-39	Use caution
10-40	Officer in trouble
10-41	Checking MV or pedestrian at location
10-42	Clear on check
10-42A	Arrest /R Reprimand
10-43	Wrecker needed
10-44	Ambulance needed
10-45	Rescue equipment needed
10-46	Fire apparatus needed for washdown
10-47	Dispatch tank truck
10-48	Alarm at location
10-49	Civil disturbance police action required
10-50	Contact medical examiner
10-51	Notify fire marshal
10-52	Permission to leave sector
10-53	Obstruction in roadway
10-54	Road blocked or closed at____
10-55	Pick up____
10-56	School crossing assignment
10-57	Bomb threat
10-58	Traffic light not functioning
10-59	Release stand-by personnel
10-60	Contact C.I. division
10-61	Property check
10-62	Clear on property check
10-63	Advise where____can be reached
10-64	Special unit operating in area
10-65	Attempting warrant at____
10-66	Radio tower lights check
10-67	Permission to transmit car to car
10-68	Meet officer____at____
10-69	Enroute to____
10-70	Report to____
10-71	Alert for major emergency
10-72	Mobilize for major emergency
10-73	Report to marshalling area
10-74	Supplement committed personal and equipment
10-75	Activate scrambler
10-75A	Deactivate scrambler
10-76	
10-77	
10-78	
10-79	Routine nonemergency
10-80	Spinal injury
10-81	Mental patient
10-82	Communicable disease
10-83	Head, face and neck injury
10-84	Seizure
10-85	Convulsions
10-86	Drowning
10-87	Police action (caution)
10-88	Overdose
10-89	Burns
10-90	Possible cariad arrest
10-91	D.O.A.
10-92	Possible internal injury
10-93	Fractured limb
10-94	Miscarriage
10-95	Emerg. Maternity
10-96	Have oxygen ready
10-97	Severe Bleeding
10-98	Stroke victim
10-99	Heart Attack
10-100	Clear Air -Emergency Message

PUBLIC SAFETY — GREAT LAKES:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

EDITOR NEEDED FOR THIS COLUMN! SEE P. 6.

Hello again everybody and welcome to yet another edition of the Public Safety-Great Lakes column. I'm still your not-so-humble editor, Scott Lowry and I will assume that you all are still who you were. This month's column is going to be kind of special, and long.

First of all, an apology. Several members have apparantly sent contributions or questions that I have not recieved. I have not gotten some pieces of mail (including several magazines and an important check!!) thanks to the U.S.Postal Service. They have not been forwarding some of my mail. Needless to say, I did have

speaks with a certain postmaster! All I can say is, if you dont see your material or hear from me,please resubmit it.

Second of all, and probably most important. This will be my last column. I have submitted my resignation to the post of column editor.

Due to several things, I will simply not have the time necessary to read, edit, write the column, and correspond with other members. I have to go through paramedic re-certification this year and that involves about 48 hours of classroom and 48 hours of in-hospital time. This is in addition to the average 56 hour workweek I have, not including my part-time job! Plus, I will be doing some traveling in my spare time (????). For these and several other reasons, I have decided to step down. By the time you read this, hope fully a replacement will be ready to take over.

I have really enjoyed writing the column and hearing from other members. It is not as easy of a job as people think trying to make that infamous deadline. I only hope that I have informed and entertained everybody during my short stay as ye olde editor. I have tried to include information that would be useful to the majority of my readers hopefully not forgetting those in Small Town U.S.A. If I haven't gotten to your area, THAT'S BECAUSE YOU DIDN'T SEND ME ANYTHING !!!!! As I've said in the past and every other editor has said, NO INPUT - NO OUTPUT!!

Enough of the teary goodbyes! let's get down to the real story. This month, more catch-up stuff.

ILLINOIS Land 'O Lincoln

First of all,yes believe it or not, the last installment of my Northwest Central Dispatch series. Finally huh?

Just in case you forgot, here's a review of what we've had so far;

POLICE

F1	470.4375	Elk Grove Village,Mt. Prospect
F3	470.3625	Arlington Hgt,Buffalo Grove
Call Sign	KUJ733	

FIRE

All Towns 154.205

PD UNIT MUMBERS.

1000's	Arl. Hgts.
2000's	Elk Grove
3000's	Mt. Prospect
4000's	Buff. Grove

FIRE DISTRICTS.

Arlington Hieghts	Dist. 1,2,3,4
Buffalo Grove	Dist. 5,6
Elk Grove Village	Dist. 7,8,9,10
Mount Prospect	Dist. 12,13,14

Here are the unit number break downs for Mt. Prospect and Buffalo Grove;

Mt. Prospect

3195	Shift Lt.
3190-91	Shift Sgts.
3160-62-64-66-68-70	Beat Cars
3360-62-64-66-68-70	Power Shift Cars
3180	All-area Cover Car
3182	North Cover Car
3183	South Cover Car
3261	Downtown Traffic Car
3263	Overwieght Detail
3380	Power Shift All-area Cover Car
3381	Power Shift Industrial Cover Car
3382,84	Power Shift North Cover Car
3383,85	Power Shift South Cover Car
3400's	Investigators
3561,80's	Public Safety Officers
3600	Desk
3700's	Special Assignment Units
3800's	Juvenile Officers
3900's	Administrative

Buffalo Grove

4195	Shift Lt.
4190-91	Shift Sgts.
4130-32-34-36	Beat Cars
4150	All-area Cover Car
4152	West Cover Car
4153	East Cover Car
4154	North Cover Car
4155	South Cover Car
4231-33	Traffic Units
4300's	Power Shift Units
4400's	Investigators
4532	Animal Warden
4531-33	All-area Cadets
4552	North Cadet
4553	South Cadet
4600	Desk
4700's	Special Assignment Units
4900's	Administrative

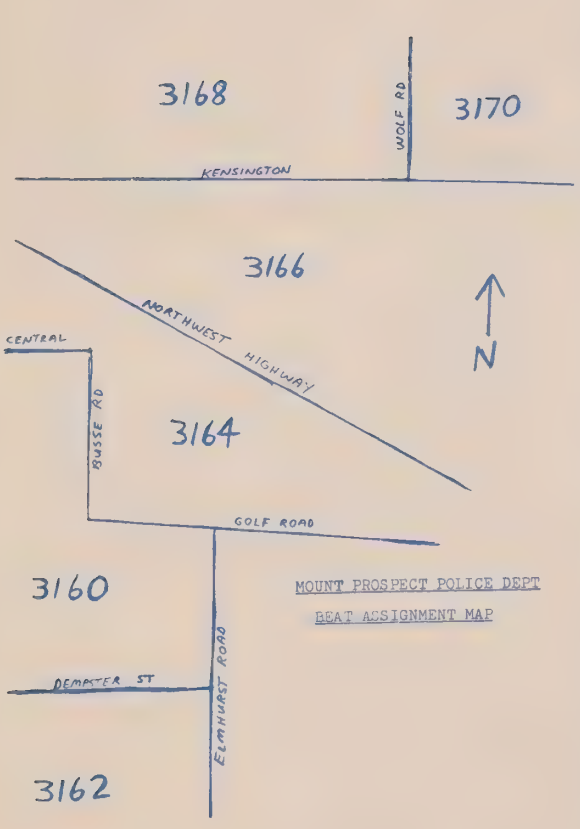
FIRE DEPT ADMINISTRTIVE CALL NUMBERS.

Buffalo Grove

200	Chief
202	Deputy Fire Marshall
203-4-5	Captains
290	Fire Ground Commander

Mt. Prospect

500	Chief
501	Deputy Chief
505-7-8-9	Fire Prevention Bureau
590	Fire Ground Commander



MOUNT PROSPECT POLICE DEPT

BEAT ASSIGNMENT MAP

BUFFALO GROVE POLICE DEPT

BEAT ASSIGNMENT MAP

Gary (IL-073) sends some more SOS info. He states he believes that the "J3" Secretary of State units are equipped with 155.925 to communicate with the "J9" Capitol Complex Security units in Springfield. The Capitol Complex Security base has a call sign of KTZ-417. He also states he's heard some SOS Car-to-Car traffic on 154.650. Like I said before, THESE GUYS ARE EVERYWHERE!!!

Mike (IA-011),our Public Safety-North Central editor,drops a note with the following tidbit. Ill. State Police District 7-Rock Island,is now using 42.34 as a Base-to-Car freq. The old freq of 42.84 is now the Car-to-Base freq.

From Scott (I forgot your number again!), comes some more Elgin-area stuff.

New Elgin city Frequencies.

Police	855.2125	KNBX891
	859.9875	
	860.9875	
Fire	460.575	KNEA320
	460.625	

Nothing heard on these yet. Other misc. goodies;

155.835	Lake Zurich FD Dispatch	KT0570
156.225 R/159.060	Kane County Highway	KJI372
45.80	Batavia Township Highway	KNDN924
45.80	Geneva Township Highway	KNDN925

He also sent a mini-profile on TRI-COM Dispatch and the Kane County Sheriff;

TRI-COM

F1	470.9375
F2	470.6125

Unit #s

1Paul___	St. Charles Patrol Units
2Paul___	Geneva Patrol Units
3Paul___	Batavia Patrol Units
___1,2,3 S	Supervisors
___1,2,3 A	Administrative
___ R	Reserves
___ C	Unknown

TRI-COM FIRE

Dispatch	154.070

Unit #s

100's	St. Charles
200's	Geneva
300's	Batavia

KANE COUNTY SHERIFF DEPT

Dispatch	159.150 R/154.830 in KSA 457
Detectives	156.150
Corrections	460.025 KYH768

Unit #s

1 to ?	Administrative
? to 50	Patrol Units
50 to 56	Detectives
57	Asst. Coroner
58	Coroner
60's	Unknown
70's	North Aurora units
80's	Hampshire units
90's	Forest Preserve Rangers

KANE COUNTY SHERIFF SIGNALS.

1	Demonstration or Test
2	Pick Up Prisoner At_____
3	Accident
3A	Accident w/injuries
4	Investigation
5	Fire Call
6	Suicide Call
7	Calling Car To Station
8	Electric Wires or Tree Down
10	Bomb Threat

11	Emergency;Robbery,Shooting,etc.
12	Call Office By Phone
13	Dog Bite:Shoot Dog
14	OK Last Transmission
15	Pick Up Papers At_____
16	Out Of Car Serving Papers
17	Out Of Car And Man Home
18	Meet Train
19	Meet Party At_____
25	Cars Stay Within 5 Miles Of Station
26	Cars Resume Normal Patrol
27	Out At Police Light
28	Escort
29	Drowning
30	Use Caution:Subject Armed
33	Radio Alert
35	Burglar Alarm

Would you believe even more from Scott;

McHENRY COUNTY SHERIFFS OFFICE

Dispatch	155.790 R/159.21 in
Local	155.520

Unit #s

140's	Richmond units
150's	Spring Grove units
120's	McHenry Shores units (?)
130's	Unknown
500's	Sheriff units
David units	Detectives
Charlie units	Conservation units (?)

Stations.

29	McHenry City
30	Harvard
34	Cary
38	Algonquin
40	Hebron
48	Marengo
54	Spring Grove
67	Crystal Lake

CRYSTAL LAKE REGIONAL

Dispatch	155.700

Unit #s

80's	Crystal Lake units
120's	Lakewood units
130's	Fox River Grove units
140's	Lake in the Hills units
150's	Oakwood Hills units
160's	Huntley units

Scott also adds to the CB Channel list published previously. He says Elgin uses channels 1 and 13 in addition to 35. In fact, they had radio trouble last fall and used CB channel 1 as dispatch for 2 or 3 days!!!

INDIANA

From Rich (former MD-068,now IN-??),these things from the Anderson,IN area;

Anderson P.D. KSA918

Ch.1	453.050
Ch.2	453.700
Ch.3	453.950

Rich states that Ch.1 is main freq with some Ch.2 traffic,but nothing yet on Ch.3.

Snow Plows

Indiana State	47.28
	47.36
Madison County	156.105
Delaware County	151.010
Anderson City	156.165
Muncie City	151.115

Thanks Rich, with the way the weather has been around here we may need to keep those snow plow freqs in our radios year round!

Next, Tim (IN-058) sends this nice list of Vincennes area material;

37.640	Knox County RENO
37.820	Hoosier Gas Corp.
39.460	Ill. Low Band Point-to-Point
39.500	Common Ill. Sheriff Freq.
42.420	Ind. State Police F1 Base-to-Car
42.260	" " " F2 Car-to-Base
42.120	" " " F3 Car-to-Car
42.160	" " " F4 Tactical
42.500	Ill. State Police Statewide Car-to-Car
42.520	" " " Dist.12 Effingham
47.280	Ind. State Highway F1
47.360	" " " F2
47.380	Ill. State Highway
48.460	Ind Public Service Base
48.540	" " " Mobile
150.995	Knox Co Highway
154.160	Bruceville Fire
154.205	Vincennes Township Fire
154.325	Freelandville Fire
154.430	Lawrenceville, Ill Fire
154.710	Vincennes PD "Ch.2" tactical
154.725	Crawford Co, Ill Sheriff
154.755	Lawrence Co, Ill Sheriff
154.785	Vincennes PD "Ch.1"
154.800	Vanderburg Co Sheriff
155.025	Civil Defense Common Channel
155.055	IREACH(IL Radio Emergency Answering Ch)
155.100	Vincennes Fire Paging
155.130	Ind. Sheriffs Common Freq
155.250	Knox Co Sheriff/Bicknel PD
155.280	McClure Ambulance
155.295	Mischiler Ambulance
155.340	IHERN/MERCI Common Amb.-to-Hosp. Freq
155.370	Point-to-Point
155.475	ILEEN/ISPERN
155.520	Clark Co, Ill Sheriff
155.595	Gibson Co Sheriff
155.610	Daviess Co Sheriff/Petersburg PD
155.715	Oakland City PD
155.760	Princeton PD/Columbia Twp Fire
155.880	Vincennes Univ. Campus Police
158.820	Vincennes Water Dept
453.100	Vincennes Sewer Dept
453.150	Vincennes Street Dept

KENTUCKY

Bill (IL-225) sends these Bluegrass State goodies;

453.850	Kentucky State Police
44.620	" " "
44.780	" " "
154.665	" " " Point-to-Point
154.815	Paducah PD
154.010	Paducah FD
155.115	McCracken Co. Sheriff
158.760	McCracken FD
453.225	Metropolis PD
155.190	Massac Co. Sheriff
154.785	KY River Counties Sheriffs
154.860	Calloway/Marshall/Graves Co. Sheriffs
155.805	Paducah/McCracken DES
155.160	W. Kentucky Ambulance Service
33.720	Metropolis FD
154.115	Vienna Correctional Center
154.995	Cairo PD
453.800	Eddyville Penitentary
155.925	Paducah Public Works
156.075	McCracken Highway Dept
154.085	Mayfield PD

Thanks Bill. Next in line is Chuck (IL-141) who sends this profile on the Kentucky Department of Conservation;

Albany KIJ202 30.940
Aurora KWV646 31.780
Barbourville KIT970 31.780
Beattyville KIG900 31.78, 31.90
Bevinsville KDN967 31.780,31.900
Campbellsville KI0782 31.740,30.940
Clermont KSM259 30.900,30.980
Danville KGB472 30.940,31.780
Dawson Springs KBS698 31.740,31.900
Elizebethtown KIG899 30.980,31.740
Epleys KWM860 31.900
Frankfort KC0349 30.940,30.980,30.900,
31.740,31.780,31.900,31.660(repeater)
Gilbertsville WZU339 31.740,31.780
Grayson KDU865 31.660(repeater),31.740
Hadox KGV213 31.900
Hazard KXZ760,KI0977 31.660(repeater),31.740,31.900
KY Dam Fish Nursery KBI837 31.740
Lancer KIM588 30.980,31.740
London KDA573,KWM662 30.940,31.660(repeater),31.740,31.780
Madisonville KXZ344 31.660(repeater)
Mayfield KIK310 31.740,31.780
Millard KWM660 30.980
Morehead KID394 30.900,31.740
Paintsville KW0553 30.980
Peabody KIM594 31.780
Pineville KXZ423,KIV617 31.660(repeater),31.74
Pikeville KXZ759 31.66(repeater),31.740
Prestonburg KYG680 31.660(repeater),31.740
Putney KIM595 31.780,31.900
Smith Grove KGW737 30.980,31.900
Somerset KGW750 30.940,31.740,31.780
St Charles KIK478 31.740,31.900
Stinnett KWM663 31.900
Sulpher Well KGW751 30.940
West Liberty KUL700 31.740,31.900

Chuck also says KD0C uses 44.680 and 44.800. Thanks Chuck.

MICHIGAN

Nothing this month.

OHIO

A load of stuff from Chuck (OH-153) next month.

WISCONSIN

Carl (WI-052) sends along quite a bit of material from the Dairy State. First a correction to the Fond du Lac County material previously published. The correct set up should be;

	RX	TX	USE
F1	155.730	155.970	Detectives,SWAT
F2	155.730	155.730	Fond du Lac PD
F3	155.370	155.370	Point-to-Point
F4	155.475	155.475	WISPERN
F5	155.625	156.090	Sheriff Repeater
F6	155.625	155.625	Talk Around
F7	155.970	155.970	Detectives/SWAT
F8	155.730	155.970	Detectives/SWAT

Each officer is assigned a number;

50 - 280 Sheriff's Dept.
500's Ripon PD
700's Other Depts.

The Wisconsin State Patrol has ordered eight mobile vehicular repeaters for testing. Frequencies applied for are 460.125/465.125 and 460.175/465.175.

Wisconsin Division of Highways survey crews in District 1 (Madison area) have been confermed using portibles on 47.40.

In February, the city of Greenfield ordered a 4-channel, "enhanced trunking" 800 MHZ system for all city departments. The city has solicited some surrounding communities to participate in the new system. Apparently New Berlin will join. This system should not be on the air for probably at least a year.

Public Safety - Great Lakes continued
Carl also has a profile on the Sauk County area.

			Call Sign KSB482
F1	155.700	158.970	Sheriff repeater
F2	155.700	155.700	Talk around
F3	155.640	155.640	Municipal Depts (BB,LD,RB,SC,WD)
F4	155.475	155.475	WISPERN
F5	155.370	155.370	Point-to-Point
F6	155.340	155.340	State EMS

154.370	Fire	WQP827
155.775	EMS/Fire/Paging repeater	
39.900	Local Civil Defense	
45.200	State Civil Defense	
46.440	Fire	

UNIT NUMBERING

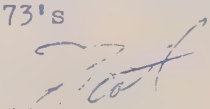
01-199	Sheriff/Municpal
200's	Baraboo
300's,400's	Fire
500's	EMS
600's	DNR Rangers Devils Lake
700's	Wreckers
800's	Special Deputy

		POLICE	FIRE	EMS
SD	Sheriff's Dept	1-59,120-140,800's		
BB	Baraboo	201-235	331-350	571-580
TD	Town of Delton	170-173		
HP	Hillpoint		431-440	
LD	Lake Delton	100-119	451-470	500-505
LV	La Valle		471-480	
LG	Loganville		381-390	
MR	Merrimac		481-490	
NF	North Freedom		441-450	
PL	Plain	182-185	366-380	536-540
PS	Prairie du Sac		310-319	506-510
RB	Reedsburg	141-169	401-430	511-520
RS	Rock Springs		391-400	
SC	Sauk City		300-309	506-510
SP	Sauk-Prairie	60-75		
SG	Spring Green	91-99	351-365	531-535
TW	Town of Washington			
WD	Wisconsin Dells	80-90		

WHEW!!!! Well, that ought to hold you for awhile. That pretty much uses up all the material I had on hand. Be sure to send your future contributions to the new editor.

It has been an honor and a privelige to be your editor these past few months. I only hope that you all take the time to send in what ever you have to the editors. We've lost several editors and even a couple of columns because of a lack of effort on the part of the general readership. It's hard work being an editor as it is. Think how had it is with nothing to work with.

Enough sermonising, time to say goodbye. So, get outa here you Knuckleheads, I mean it. Color me gone, I'm history, I'm vapor,Hasta La Bye Bye. 73's



PUBLIC SAFETY WEST

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming to

George N. Hoggatt, 17473 E. 16th Dr., Aurora, CO 80011

****

ISSUE NUMBER 100

Carol (THE Editor) says I'm supposed to have a breezy bit to start the column and help mark this auspicious occasion. However I'm can't think of a thing to say. Good thing I'm not a politician. Anyway, 100 issues is a fair feat for a club that was a local group just a few years ago. Happy Birthday or what ever fits.

For Pacific area fans and Hawaii travelers, there is a new book available that has what appears a very complete list of data for all of the U.S. Pacific islands. It includes Public Safety, Business, Media, Amateur, Federal and much more. It is put out by FOX and the address is 4518 Taylorsville Road, Dayton, OH 45424-2497. Editions for Alaska and Denver are reported to be underway.

Operation SECURE Mark Johnson ID-012

A note to add some information to the April column regarding the frequencies listed for Colorado under "Misc. Colorado New Stuff" on page 65.

The frequencies listed are for Operation SECURE which is an acronym for State Emergency Capability Using Radio Effectively. It is an outgrowth of the old Disaster Communications Service and uses a number of frequencies between 2 and 10 MHz. the idea behind this system is to give states the capability to communicate over long distances more effectively during emergencies.

As of 28 October 1983, there were 16 states licensed under Operation SECURE. They were Colorado, Florida, Indiana, Louisiana, Michigan, Mississippi, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, Ohio, Oklahoma, Texas and Wyoming. At that time the State of Washington had submitted an application to the FCC and the State of North Dakota had indicated their intention to submit an application.

In spite of the number of states licensed to use the system, not all of them are operational at the present time. Several states are still trying to come up with the necessary funds to purchase the equipment.

The frequencies for Colorado are explained below along with some other info that might be of interest:

FREQ	TIME	TYPE	USE
2327.4	day and night	fixed and mobile	interstate co-ordination
2467.4	day and night	fixed and mobile	
2472.4	day and night	fixed and mobile	
2475.4	day and night	fixed and mobile	
5136.4	day and night	fixed	
7803.4	day	fixed	
7806.4	day and night	fixed	interstate co-ordination

Call signs used are KNDB975 Temporary
KB29622 Mobile
KNDB974 Base

Colorado is also seeking cross licensing with New Mexico on 2802.4 and 7478.4, which are used by New Mexico.

The equipment used by Colorado is King Radio KMC-95 radios with King tuners, 9 foot steel whips and fan dipole antennas.

Montana is also licensed and has the following frequencies in use:

2327.4	day and night	fixed and mobile	interstate only
2805.4	day and night	fixed and mobile	
2813.4	day and night	fixed and mobile	
7478.4	day	fixed	
7481.4	day	fixed	
7806.4	day and night	fixed	interstate only

As of 18 November 1983, Montana had no equipment but was planning on using 5 mobiles and 12 bases located throughout the state.

The information on Colorado was provided by David W. Holm of the Disaster Emergency Services and the material from Montana was provided by Homer Young of the Disaster and Emergency Services Division.

For any who might be interested in writing to the various states in the West that are or might be licensed, here are the addresses:

Colorado	Disaster Emergency Services EOC, Camp George West Golden, CO 80401
Montana	Department of Military Affairs Disaster and Emergency Services Division P.O. Box 4789 Helena, MT 59604
Nevada	Civil Defense and Disaster Agency 2525 S. Carson Street Capitol Complex Carson City, NV 89710
Washington	Department of Emergency Services 4220 East Martin Way Olympia, WA 98504
Wyoming	Wyoming Disaster and Civil Defense Agency P.O. Box 1709 Cheyenne, WY 82001

COLORADO

STATE HIGHWAY DEPARTMENT (editor)

The Highway Department is beginning a migration to VHF highband repeater operation. The first Section to change is the Craig Maintenance Section. Next will be the Grand Junction Section if the money holds out. I don't have the frequencies available but they will be those assigned to Highway Maintenance or Forestry Conservation. Each of the eight sections will have their own channel and there should be a statewide channel and a supervisory channel if the recommendations of the consultant are followed.

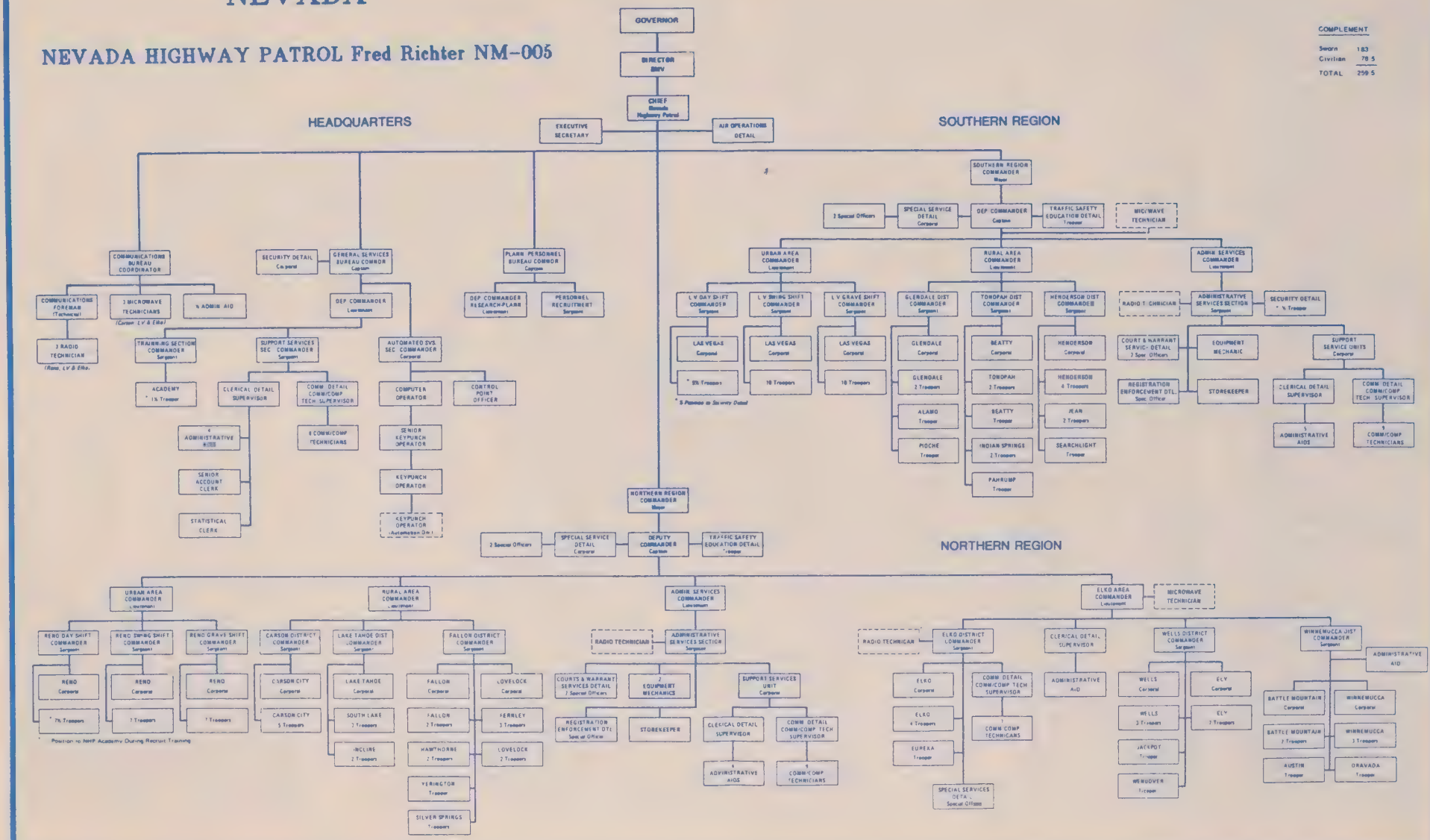
PARKER POLICE Tim Tonge MO-070

Since Parker incorporated a couple of years ago, they have set up a Police Department (Parker FPD is a spearate entity). Police frequencies in the Denver area are hard to come by. Right now they are sharing the main dispatch frequency that Boulder County uses. Parker's base is a 25 watt simplex unit while Boulder's is a 300 watt repeater. To add to the confusion, Louisville, which is dispatched by Boulder, uses the same unit numbers as Parker does.

Parker is looking for a new frequency. One possibility is the same as is used by the Colorado Springs Water Department if the interference is less. The only other possibility is to do as the Parker FPD is doing and go to 800 MHz. This option is expensive as they will then have to have two radios in the base and cars so they can maintain communications with the Douglas County Sheriff.

NEVADA

NEVADA HIGHWAY PATROL Fred Richter NM-005



NEW MEXICO

MEDICAL (NM-016)

Grants - Aids Ambulance (462.950), apparently the owner of this company has managed to get this system hooked up to a phone patch and it is used only by this agency in the Grants area. For the most part, however you can hear ambulance to hospital traffic on MED-4 463.075 from a repeater located on Mt. Taylor at 11,000 feet above sea level. Also Santa Fe and Albuquerque can be heard assigning the other seven Med frequencies to ambulances in their areas as they get into town or close enough to the base-hospital repeaters.

In most cases where the ambulance is too far away from the hospital, MED-4 will be used to talk from ambulance to hospital and one of the controling bases either in Albuquerque or Santa Fe will notify the hospital to come up on MED-4 to get patient information from the ambulance.

FIRE (NM-016)

154.310 is a frequency used by just about every fire department in the State of New mexico. In some cases a small department may use only 154.310.

WASHINGTON

KING COUNTY Ron Murray CA-VE-013

Medic One

MEDIC UNIT	DISPATCH	BASE
1	453.800	Harborview Medical Center
4	154.415	Highline Hospital
5	154.070	Valley General
6	154.070	Auburn FD station 31
8	154.950	Federal Way
10	453.800	Harborview Medical Center
16	453.800	Seattle FD station 16
23	154.400	Redmond FD station 23
416	153.770	Fire Districts 4 and 16
104	154.190	Issaquana Fire District 10

462.950 KQN648 Medic One-Seattle Control (SFD)
463.025 MED-COMM Auburn Doctor-Auburn General Hospital
463.125 MED-COMM Medic One Doctor/Trauma Doctor/H.M.C.
463.175 MED-COMM Valley Doctor-Valley General Hospital
453.700 SFD F-3 Medic One Doctor/Trauma Doctor/H.M.C.
155.340 HEAR System all units

Shepard Ambulance (KWH567)

F-1 - 155.220 Central
F-2 - 155.295 Cabulance Dispatch
F-3 - 155.280 East/West
F-4 - 155.160 South

KING COUNTY 453 MHz assignments

453.050 King County (not in use)
453.100 Puget Sound Air Pollution Control Agency
453.150 King County Public Works
453.200 Port of Seattle Police
453.300 Port of Seattle Fire
453.325 Mercer Island Police
453.350 King County M.A.R.S. (mutual aid)
453.375 METRO Transit
453.450 Bellevue Police F-1
453.475 Washington State Patrol (not in use)
453.500 Port of Seattle
453.525 METRO Transit
453.600 Seattle Fire F-2
453.650 Kirkland Police/Redmond Police F-1
453.700 Seattle Fire F-3
453.725 Bellevue Police F-2
453.800 Seattle Fire F-1
453.850 City of Seattle/Seattle Center
453.900 Seattle Animal Control
453.925 Washington State Patrol (not in use)
453.950 King County Jail
453.975 Bothell Police

George

Public Safety-California

Public Safety-California P.O. Box 3962 Santa Fe Springs, California 90670-1962

WELCOME TO THE JUNE 1984 ISSUE OF RCMA-PUBLIC SAFETY-CALIFORNIA

NEWSFLASH!! NEWSFLASH!! NEWSFLASH!! NEWSFLASH!!!

RCMA Newsletter celebrates their 100th issue! This was the headline on the front page of newspapers across the nation. Several articles reported that the RCMA started out as a small group of only 25 to 30 monitoring enthuiasts in Anaheim, Calif. in May, 1975. At one time membership was almost 100 times the the original number of members. The first Newsletter was but only one page (see centerfold of this issue), whereas present issues average 80 pages and have been as high as 120+ pages!
RCMA Public Safety California Editors ERIC (CA-LA-045) and MIKE (ID-001) congratulate RCMA on a job well done. We thank all members who presently and previously have contributed to making the RCMA Newsletter what it is today. We award you all a BIG 10-4!

AND NOW ON TO THE COLUMN.....

From ERIC (CA-LA-045):

In last month's issue, we mentioned to you that we had titled ourselves the UNOFFICIAL scanner frequency source for the 1984 Summer Olympic Games. In the next two issues (June & July) we will attempt to share as much information relative to the Olympics as we can. Please send what information you have to PS California, P.O. Box 3962, Santa Fe Springs, CA., 90670

****

From ERIC (CA-LA-045):

POLICE DEPARTMENT-City of Los Angeles Callsign: KJC625
Radio Communications System

R.O.V.E.R. - Remote Out of Vehicle Emergency Radio (UHF Handhelds)

Bureau Name	#	Division	Rover Ch.		Rover Frequency	
1. CENTRAL	1	Central	Central	1	506.7375 MHz.	R
		Central Traffic	"		506.7375	R
	2	Rampart Street	Central	2	506.9375	R
	11	North East	"	2	506.9375	R
	13	Newton Street	Central	3	507.1875	R
	4	Hollenbeck	"	3	507.1875	R
		Central Bureau Tac.	ROVER	4	506.5875	D/S
2. VALLEY	9	Van Nuys	Valley	1	506.7125 MHz.	R
		Valley Traffic	"	1	506.7125	R
	10	West Valley	Valley	2	506.8875	R
	17	Devonshire	"	2	506.8875	R
	15	North Hollywood	Valley	3	507.1625	R
	16	Foothill	"	3	507.1625	R
		Valley Bureau Tac.	ROVER	5	507.2625	D/S
3. SOUTH	5	Harbor	South	1	506.7875 MHz.	R
	18	South East	"	1	506.7875	R
	3	South West	South	2	506.9875	R
		South Traffic	"	2	506.9875	R

	12	77th Street South Bureau Tac.	South ROVER	3 7	507.2375 507.0375	R D/S
4. WEST	8	West Los Angeles West Traffic	West "	1 1	506.7625 MHz. 506.7625	R R
	7	Wilshire	West	2	506.9625	R
	14	Pacific (old Venice)	"	2	506.9625	R
	6	Hollywood West Bureau Tac	West ROVER	3 6	507.2125 506.8125	R D/S

CITYWIDE RADIO FREQUENCIES

Tac One	154.83 MHz.	KMA367	Hot Shot Calls
Tac Two	154.77	KGW725	(Detectives)
Tac Four	154.92		CLEMARS
ROVER 4	506.5875 D/S	KJC625	Central Bureau Tactical
ROVER 5	507.2625 D/S	"	Valley Bureau Tactical
ROVER 6	506.8125 D/S	"	West Bureau Tactical
ROVER 7	507.0375 D/S	"	South Bureau Tactical
ROVER 8	507.0875 R	"	EMERGENCY TRIGGER
	506.8375 MHz.		Metro Division (114)
	122.75 AM		Helicopters (75)
	123.025 AM		Helicopters (alternate)

MDT - Mobile Data Terminals - Frequencies

MDT A	159.15 B / 155.37 M		Valley Bureau MDT
MDT B	158.91 B / 155.01 M		South Bureau MDT
MDT C	159.18 B / 155.52 M		Central Bureau MDT
MDT D	159.03 B / 155.58 M		Citywide MDT
MDT E	158.865 B / 155.07 M		West Bureau MDT

Note: Re ROVER frequency chart, R=Repeater mode, D/S=Duplex/Simplex mode. On the LAPD Motorola MX-350 handheld radios, there is a D/S switch on the top of the radio. This allows officers to operate either duplex (through the repeater) (usually on the ROVER Tac Channels-ROVER4, 5, 6 and 7) or simplex for short range. Currently, LAPD is using 8 channel Motorola MX-350 handhelds. Plans call for obtaining synthesized radios with more channel positions. On each radio, the first three frequencies are reserved for the various Bureaus. The fourth, fifth, sixth and seventh position are the four ROVER Tac Channels. Position eight on all radios is the Emergency Trigger Channel.

SW	Metro Div	Central Bureau	Valley Bureau	South Bureau	West Bur.
1	Metro	Central 1	Valley 1	South 1	West 1
2	Central 3	Central 2	Valley 2	South 2	West 2
3	West 2	Central 3	Valley 3	South 3	West 3
4	ROVER 4	Central ROVER 4	ROVER 4	ROVER 4	ROVER 4
5	ROVER 5	ROVER 5	Valley ROVER 5	ROVER 5	ROVER 5
6	ROVER 6	ROVER 6	ROVER 6	ROVER 6	West ROVER
7	ROVER 7	ROVER 7	ROVER 7	South ROVER 7	ROVER 7
8	Emergency	Emergency	Emergency	Emergency	Emergency

Although all ROVER Tac Channels are available in all radios, personnel are requested to use only the ROVER Tac assigned to their respective Bureau. Through the use of the repeaters, it is possible for a West Valley unit to communicate with a Harbor unit or a Newton Street unit, but it is preferred that they not do this.

All of the 18 UHF frequencies used by LAPD have a second, sequentially numbered channel designation. Sometimes officers may request a unit switch to Channel 13 (the Emergency Trigger), since it is often the only clear frequency. When anyone transmits on this frequency, their four digit ROVER ID flashes up on a display in front of EVERY dispatcher and supervisor console at ECCCS (Communications)! OOPS! Actually, this is for the Emergency Trigger help call. The computer can be queried for that particular ROVER, indicating which officer it is assigned to and what unit number he is assigned to. The computer then checks that unit's log history to determine their last reported location, in an attempt to respond aid to him/her. As soon as any ROVER activates the Emergency Trigger, his ROVER

radio IMMEDIATELY & AUTOMATICALLY switches over to the Emergency Trigger (Frequency 13 - 506.8375 MHz. (R). This ROVER has complete access to the frequency until the system is reset. This protects from other units accidentally covering him/her.

Freq. 1	506.7375	Central 1	Freq. 10	506.7625	West 1
Freq. 2	506.9375	Central 2	Freq. 11	506.9625	West 2
Freq. 3	507.1875	Central 3	Freq. 12	507.2125	West 3
Freq. 4	506.7125	Valley 1	Freq. 13	507.0875	EMERGENCY
Freq. 5	506.8875	Valley 2	Freq. 14	506.5875	CityWide ROVER 4
Freq. 6	507.1625	Valley 3	Freq. 15	507.2625	CityWide ROVER 5
Freq. 7	507.2375	South 3	Freq. 16	506.8125	CityWide ROVER 6
Freq. 8	506.7875	South 1	Freq. 17	507.0375	CityWide ROVER 7
Freq. 9	506.9875	South 2	Freq. 18	506.8375	Metro Division

****

Note: LAPD Metro Division and LAPD Detective Bureaus have their own dispatch points outside of ECCCS (Communications AKA Control 1)

****

From ERIC (CA-LA-045):

Attention Southern California area RCMA members:

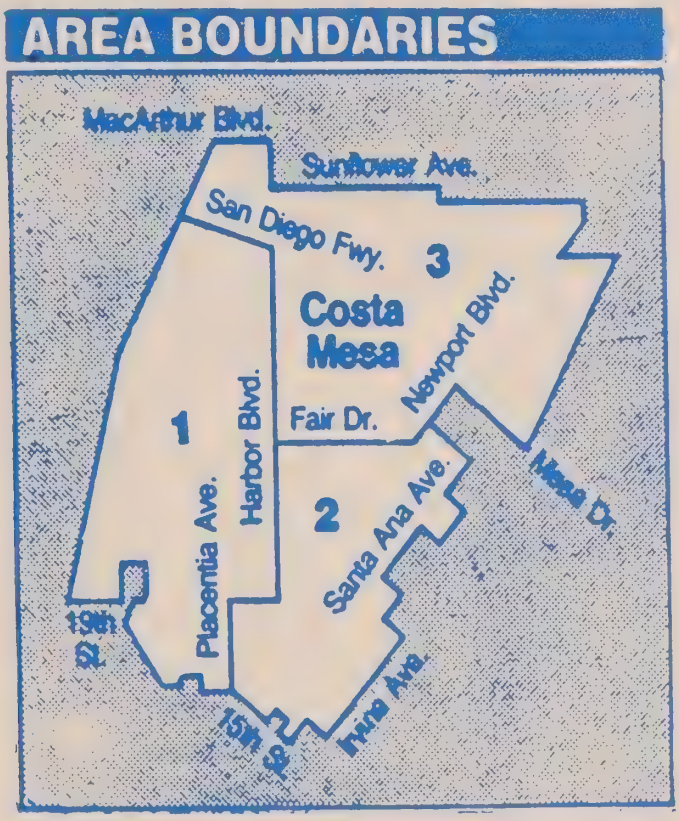
TOUR - LA Sheriff SRC	Friday, May 25	8 PM
TOUR - LAPD ECCCS	Friday, Aug 24	8 PM

See Calendar section for more info!

See LAPD Southwest Area Map on next page.

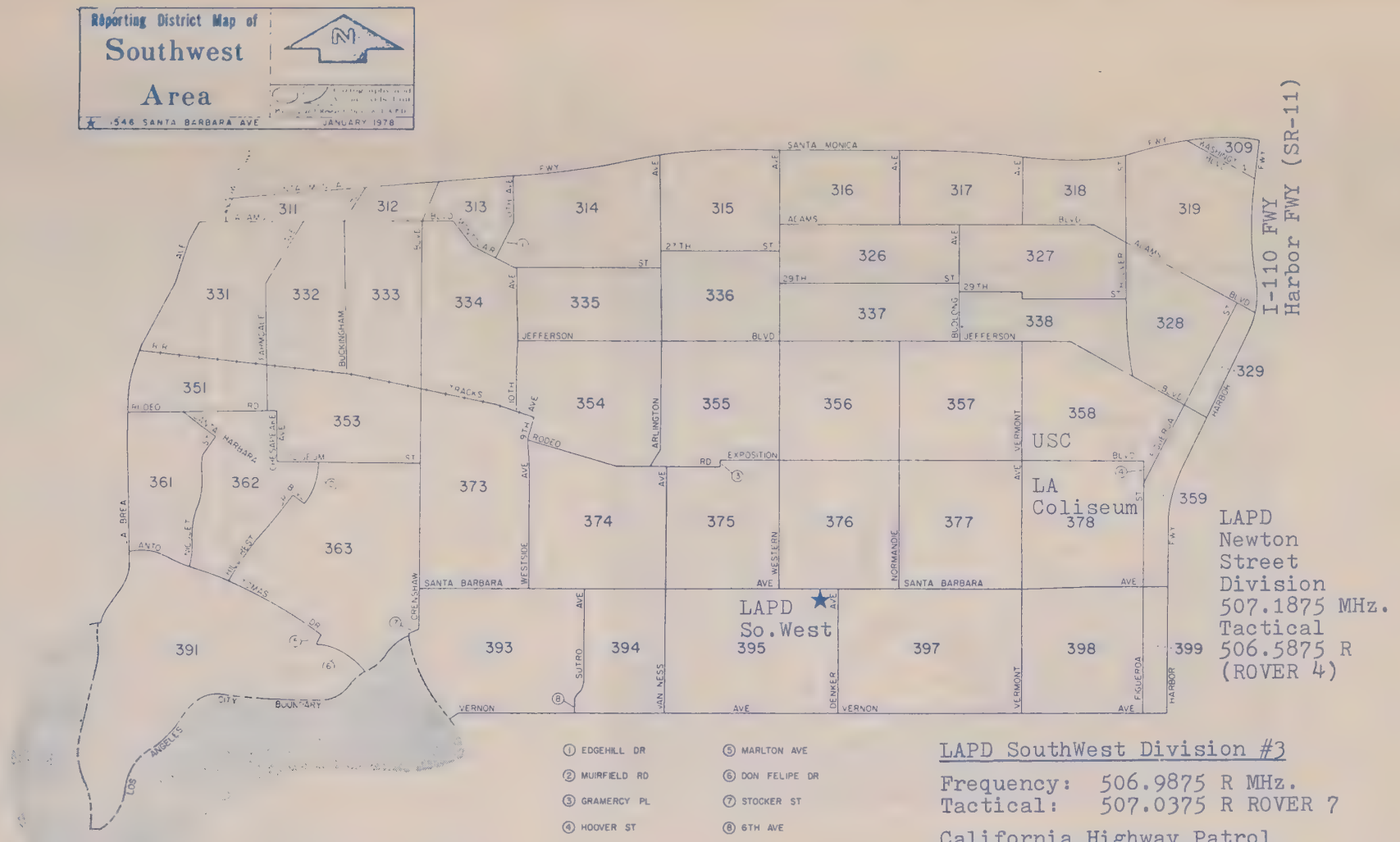
From ERIC (CA-LA-045):

POLICE DEPARTMENT-City of Costa Mesa
Area Boundaries



Radio System "Station 44" KVM235

460.075	R	"Green"	Dispatch
460.150	S	"White"	* Short range car to car
460.200	R	"Orange South"	* Mutual Aid
460.500	R	"Blue"	* Car to Car
45.08	BM	"Channel 3"	Supervisors, Helicopter & Dispatcher



Note: LAPD So. West Division covers area west of I-110 FWY. LAPD Newton Street Division covers area east of I-110 FWY. Freeways are covered by Central LA CHP (Area # 15).

LAPD SouthWest Division #3

Frequency: 506.9875 R MHz.
Tactical: 507.0375 R ROVER 7

California Highway Patrol

Central LA CHP # 15
'BLACK' 42.46 B / 42.70 M MHz.

Costa Mesa PD uses their "Green" channel for dispatching and primary car to car. The three channels marked * are County coordinated and shared frequencies. Costa Mesa is presently using MDT (mobile data terminals) on 800 MHz. During the day Freq. 3 is the parks, street crews, etc. (local government). At night, however, the police take over! Sergeants, the helicopter "EAGLE" and the dispatcher can be heard making some very interesting comments at times. Costa Mesa Fire Department (Station 84) can be heard on 46.44 MHz. (co-shared with Newport Beach Fire Department (Station 83)).

MONITOR THE SPACE SHUTTLE!

Call 1-900-410-6272 1st min is 55¢; ea min thereafter 35¢.
Or listen to 224.04 MHz. or 145.46 MHz. Los Angeles area.
From ERIC (CA-LA-045):

The LA Sheriff listing in Jan 84 RCMA should now be in full operation.

RADIO - TV NEWS MEDIA FREQUENCIES

P = Program Data - Remote Links - Not Dispatch
N1 = On Air Wide Band - (Better Voice Quality)
N2 = Narrow Band - (Dispatch)
(R) = Repeater
(S) = Simplex
(RI) = Repeater Input

Type	Frequency	Station		Sites
(R)	450.0375	Community Use	N1	
(R)	.050 *	KLAC, KMET		
(S)	.0625	KHOF	N1	
(S)	.0875	KNX Radio	N2	FLPW
(R)	.1125	KPBS TV	N2	M
(R)	.1125	KSCI	N2	Sunset Ridge
(R)	.1375	KABC TV	N1	L,O,P,S,V,X
(R)	.1625	KABC TV	N1	L,O,P,S,V,X
(S)	.1875	KNBC TV	N2	Wilson
(R)	.2125	KOGO (San Diego Radio)	N1	
(S)	.2125	KTLA TV (Portables)		
(R)	.2375	KTLA TV	N1	Wilson
(R)	.250	Backup - KMPC	N1	KJOI Coldwater Cyn.
(R)	.2625	KTLA TV	N1	Wilson
(S)	.2875	KNXT	N2	Wilson
(R)	.3125	KABC TV	N2	L,O,P,S,V,X
(S)	.3125	KUDE (Low Power)		Oceanside
(R)	.3375	KFMB	N1	M,S
(R)	.350	KTLA (Backup)	N1	Wilson
(R)	.3625	KFMB	N1	M,S
(R)	.3875	KNBC	N2	O,P,S,W
(R)	.4125	KGTV	N2	D,M,S
(S)	.4125	CBS TV	N2	Wilson
(R)	.4375	KCST	N1	M
(R)	.450	KDFK	N1	Wilson
(R)	.4625	KCST	N1	M
(R)	.4875	KOCE	N2	Hacienda
(S)	.4875	KPBS		(Portables)
(S)	.5125	KNXT TV	N2	Wilson
(R)	.5375	KNBC TV	N1	O,P,S,W
(R)	.5625	KNBC TV	N1	O,P,S,W
(R)	.5875	KTTV	N2	Wilson
(S)	.6125	CBS TV	N2	Wilson
(R)	.650	KPFK		Wilson
(R)	.700	KNX Radio		P,L,F
(R)	.750	KMPC		Briercrest
(R)	.800	KNXT TV		Wilson
(R)	.850	KFWB Radio		P,L,S
(R)	.850	KVCR		Crestline
(R)	.900	KABC Radio		Lukons, P.V.

Type	Frequency	Station		Sites
(R)	450.950	KTNQ Radio		Flint
(R)	.950			
(RI)	455.0375	Community Repeater Input	N1	
(S)	.050	KGIL Radio		Verdugo
	.050	KLAC-KMET		Input
	.0625		N1	
(S)	.0875	KMJ TV	N2	Wilson
	.1125	KSCI-KPBS TV		Input
	.1375	KABC TV	N1	Mobile
	.1625	KABC TV		Input
(S)	.1875	CBS TV		Mt. Wilson
	.2125	KOJO Radio	N2	Input
(S)	.2125	KPFK		
	.2375	KTLA		Input
	.250	(Backup) KMPC		Input
	.2625	KTLA		Input
	.2875	KGTV		Input
	.2875	NBC (Network)		HT-Net
(S)	.3125	KPOL		Flint, Verdugo
	.3373	KFMB		Input
	.350	(Backup) KTLA		Input
	.3625	KFMB		Input
	.3875	KNBC		Input
	.4125	KABC		Input
	.4375	KCST		Input
(S)	.450	KHJ		Lukens
(S)	.4625	KCST		Input
(S)	.4875	KOCE		Input
(S)	.5125	KEZY		Anaheim
(S)	.5125	KCSM		San Fernando
(S)	.5375	KNBC TV		Input
	.5625	KNB TV		Input
	.5875	KTTV		Input
(S)	.6125	KVSC		KJOY
(Rl)	.650	KPFK		Input
(S)	.650	KPRO		Riverside
	.700	KNX Radio		Input
	.750	KMPC		Input
	.750	KTYO		Calumbre (Santa
(S)	.800	KGIL		Verdugo
	.800	KPBS		Low Power Base
	.850	KFWB		Input
(RI)	.850	KVCR		San Berdo - RI
	.900	KABC		Input
	.950	KTNQ		Input
	.950	(Backup) KABC Radio		Input

****

From ERIC (CA-LA-045):

RCMA Public Saftey California's Top 10 for the Olympics

1.	154.83	MHz.	LAPD Tac One	Hot Shot calls (always busy!)
2.	42.34	MHz.	CHP Blue	Traffic & Sigalerts (42.18m)
3.	39.36	MHz.	LA Sheriff	(Similar to LAPD Tac One)
4.	33.70	MHz.	LA City Fire	Metro area dispatch "OCD"
5.	154.92	MHz.	CLEMARS	Police Mutual Aid
6.	42.46	MHz.	CHP Black	Central LA (Busy!) (42.70m)
7.	42.42	MHz.	CHP Tan	Olympic Escorts ?! (42.84m)
8.	122.75	MHz.		Police Helicopters (AM!)
9.	47.24	MHz.	CalTrans	Freeways! (Also try 47.02 & 45.68)
10.	450.85	MHz.	KFWB	Remote Broadcast (KMPC 450.750)

NOTE: This list is just a short list of what I think might be some of the better frequencies to always monitor. Rumor has it that the CHP will be using the TAN (42.42/42.84) for escorting visiting dignitaries, etc. throughout Southern California. Listen here & to the BLUE (42.34/42.18) for trips to Disneyland and the like!

Public Safety - California continued

Don't forget to monitor the University Police Departments for events at the various universities/colleges. For CSU PD system, try 153.74 MHz. For UC system try 155.475, 155.505 and 155.445 MHz. Don't leave out the CHP mobile extender frequency of 154.905 MHz. (Lots of good listening here if you are close enough!) (CHP extenders have CLEMARS 154.92 MHz. as Ch.2!). LA County, Orange County and CalTrans will all be busy maintaining roads, right? Therefore, monitor all of the CalTrans freqs., and county roads departments. You might even try local government freqs.-could be busy! The events will be covered by almost every radio station & newspaper, plus ABC TV. They all have 2 way radios. Enough yet? Nope! Don't forget all the police freqs for the cities having the various events. SEE YOU ALL NEXT MONTH (AT THE OLYMPICS!) 73's ERIC (CA-LA-045)

FLASH!!! As of May 1st Santa Ana CHP is to add "GRAY" channel for Westminster units '55' and Capistrano units '113'. Santa Ana units '86' are to remain on "PURPLE".

Railroads

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad radio system details, and related questions to:

Bill Farmer, P.O. Box 1838, Thousand Oaks, CA 91360

Congratulations to RCMA on the publication of its 100th newsletter! We are proud to be a part of this growing organization. In the two years since we took over this column, Gary has been handling the incoming correspondence; now it's time for Bill to take over that duty for a while. Please send contributions for the Railroads column to the address shown above. For those of you who might want to write to Gary directly, he has a new address: 27639 Maple Valley Drive, Elkhart IN 46517. Please remember to enclose a SASE if you desire a personal reply from either of us by mail. Now let's move on to this month's news...

In today's climate of railroad deregulation, and with the tendency of major roads to abandon service on lightly-used branch lines, the number of shortline railroads in the U.S. is increasing for the first time in years. According to the ICC, the number of shortlines went from 260 in 1981 to 311 in 1983. One of the reasons for the increase is the fact that shortlines often use nonunion employees or have union agreements which allow more flexibility than the major railroads have. Thus a branch line which could not be operated at a profit by a major railroad can sometimes be operated economically by an independent shortline. This is similar to the situation in the airline industry where low-cost regional lines are taking over routes abandoned by the major carriers.

In some cases state governments have come to the aid of shortline operators to avoid the loss of rail freight service to some of their communities. One such state is Wisconsin. This month we have two reports on shortlines in this progressive midwest state.

WISCONSIN SHORTLINES

by BILL (CA-VE-010)

[Part of this information came from an article in the Milwaukee Journal, November 27, 1983 contributed by Carl (WI-54)]

The bankruptcy of the Milwaukee Road, plus branch line abandonments by Soo Line, Chicago & North Western, and Illinois Central Gulf, prompted the State of Wisconsin to set up its freight railroad assistance program in 1979. There were about 1100 miles of abandoned railroad in the state, of which 804 have been preserved and about 625 presently have freight service.

When a major railroad applies to abandon service on a line, the state conducts a study to determine if preservation of service would

be worthwhile. If a need is shown, the usual procedure is for local counties and cities to form a commission to apply for state funds. The commission then arranges for a contractor to run the day-to-day operations of the railroad.

An example is the Wisconsin & Southern Railroad, running 147 miles between North Milwaukee and Oshkosh over former Milwaukee Road trackage. The counties of Dodge, Winnebago, Fond du Lac, Green Lake and Washington formed the East Wisconsin Counties Railroad Consortium, applied for state aid, and contracted with Funding Systems Corp. of Pittsburgh to operate the line. The state paid 80% of the estimated $8.4 million cost of acquiring the line and rehabilitating the track, while Funding Systems paid the other 20%. For more information on Wisconsin & Southern's operations, which began in July 1980, we have a separate article by Carl (below).

The Central Wisconsin Railroad started small but continues to grow. Its first line was 41 miles between Waukesha and Milton Junction, formerly owned by Milwaukee Road. It since has added 369 miles of former ICG and Milwaukee Road lines including routes to Prairie du Chien, Mineral Point, and Elkhorn WI, and Freeport IL. In addition it has trackage rights over the Milwaukee between Janesville and Madison. This railroad is not using state funds to finance track rehabilitation.

The Nicolet Badger Northern planned to start service in early 1984 over 40 miles of ex-C&NW route between Tipler and Wabeno in the northern part of the state. We don't know whether operations have actually started. Perhaps one of our members can tell us.

The Brillion & Forest Junction has been in operation several years on part of a former C&NW branch between the Milwaukee main line at Forest Junction and the town of Brillion.

The East Troy Municipal Railroad runs between Mukwonago and East Troy.

One shortline which is not new is the Escanaba & Lake Superior. It is new to Wisconsin, however. In 1978 this Michigan railroad took over the former Milwaukee Road main line from Green Bay to Channing and Ontonagon MI. The costs of rehabilitating the line were high, so it applied for state funds through the Northeastern Wisconsin Railroad Transportation Commission.

Here are the radio frequencies that we know of for the shortlines of Wisconsin:

BRILLION & FOREST JUNCTION	160.620
CENTRAL WISCONSIN	???
MUNICIPALITY OF EAST TROY WISCONSIN	???
ESCANABA & LAKE SUPERIOR	160.320
NICOLET BADGER NORTHERN	???
WISCONSIN & SOUTHERN	(See Carl's article, below)

As you can see, we need frequency information on several of these shortlines. With changes constantly occurring on the shortline scene, we need continuing information on the use of radio by these new operators, not just in Wisconsin but all over the country. Please take a few minutes to send us any data you have on shortlines in your area.

WISCONSIN & SOUTHERN RAILROAD

by CARL (WI-54)

I don't monitor railroads too much but I am familiar with Wisconsin & Southern's system. They are headquartered in Horicon, just 5 miles from Mayville where I live. I probably can't tell you much that you don't know but here is what I have:

160.575	Ch 1 Road
161.145	Ch 2 Maintenance
161.370	Ch 3 Soo Line (Coordination) Base Only
160.770	Ch 4 Milwaukee Road (Coordination) Base Only

They have two towers, one near Allenton, and one near Alto. Callsign is WQB703.

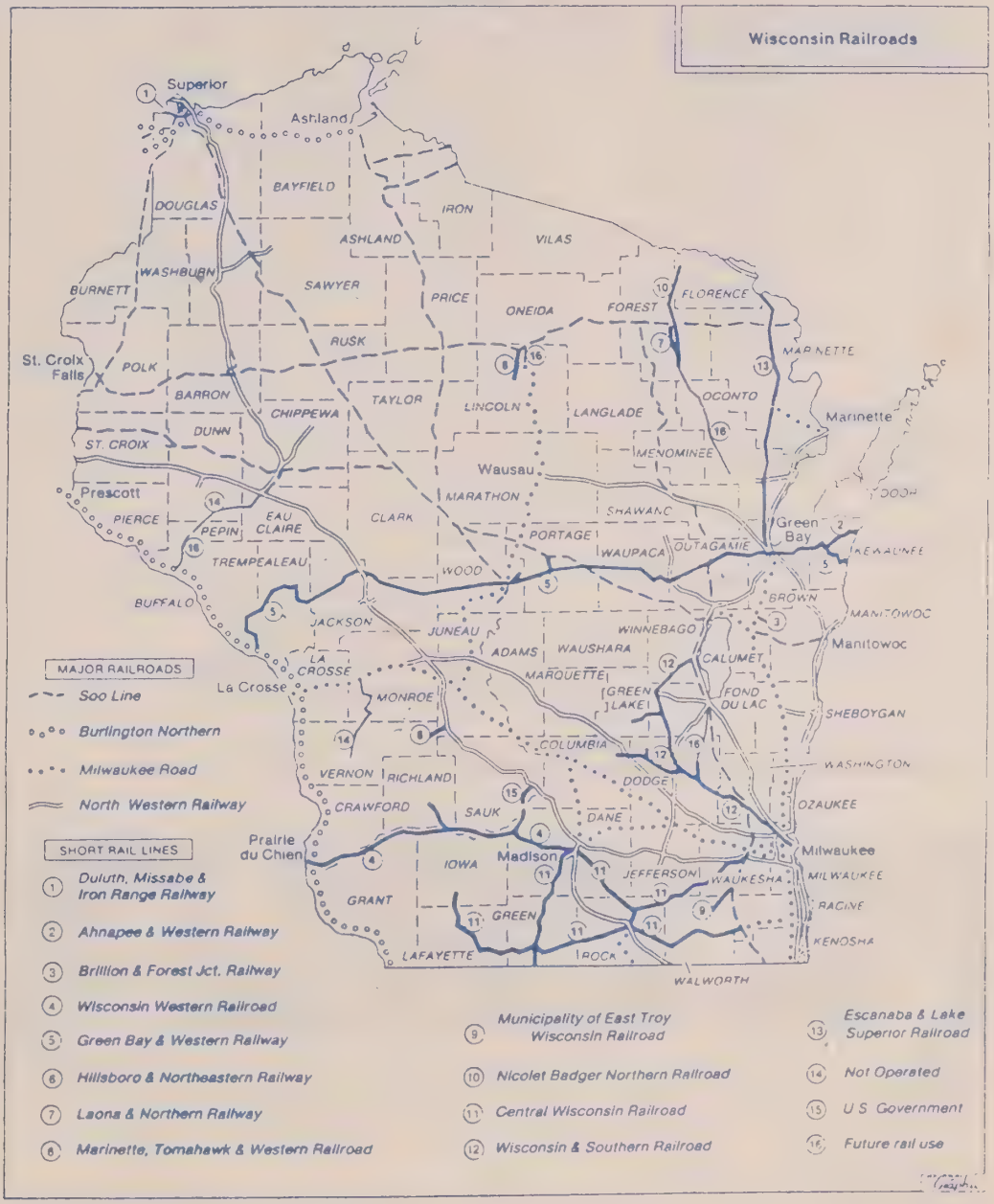
Mobile Units:
1 General Manager
2 Superintendent of Rehabilitation
3 Roadmaster
4 General Foreman
5 Section Foreman - East
6 Section Foreman - West
7 Mechanical Department

Engine Numbers: 4490, 4491, 4492

Enjoy your column!

(Thanks, Carl, for your report. This is just exactly the kind of contribution we need to make this column interesting and informative. The same goes for Joe's and Ken's reports which follow. They don't have to be long or involved, just send us the data so we can share it with the membership. Reports from on-the-scene observers like you are the best source of accurate and up-to-date information.)

Here is a map of Wisconsin Railroads that was published in the Milwaukee Journal on March 29, 1983. The Wisconsin Western later became part of the Central Wisconsin.



AMTRAK UPDATE

Responding to our request in the April issue, Joe (MD-015) sent along the Amtrak locomotive frequency assignments for trains 5 and 6, the California Zephyr. This assignment is designated as Run No. 003:

Channel Selector Switch Position	Railroad	Transmit	Receive
A-1	Santa Fe	160.650	160.650
A-2	Southern Pacific	161.550	161.550
A-3	Burlington Northern	161.100	161.100
A-4	Union Pacific	160.740	160.740
B-1	Milwaukee Road	160.770	160.770
B-2	Rio Grande chan. 3	160.395	161.565
B-3	Rio Grande chan. 4	160.455	160.455
B-4	Rio Grande chan. 1	160.920	160.920

MORE SYNTOR CHANNELS

from KEN (IL-???)

In the April 1984 and November 1983 Newsletters we listed the frequencies that some railroads are having programmed into the Syntor radios for their new locomotives. Now Ken adds another road for us:

GRAND TRUNK WESTERN

Channel	Transmit	Receive	Description
1	160.590	160.590	GTW Road
2	160.530	160.530	GTW Dispatcher
3	160.845	160.845	GTW Yard
4	161.430	161.430	DTI Yard
5	161.220	161.220	DTI Road
6	160.800	160.800	Conrail Road
7	160.950	160.950	Southern Road
8	160.830	160.245	Southern Dispatcher
9	160.770	160.770	Milwaukee Road
10	161.430	161.430	Milwaukee Yard
11			(not used)
12			(not used)

Ken also sent in some frequency data for the Chicago area:

REGIONAL TRANSPORTATION AUTHORITY (RTA):

161.610	Ex-Rock Island commuter lines
160.770	Ex-Milwaukee Road commuter lines
160.680/161.220	PBX
161.340	Police

LA SALLE & BUREAU COUNTY:

160.635	LaSalle & Bureau County trackage
161.610	Ex-Rock Island trackage

That wraps up our column for issue No. 100...let's make the second hundred issues as good as the first! See you in No. 101...

—Gary & Bill

This column is for the exchange of space communications systems (manned or unmanned), frequency information, orbital data, hobby receiving equipment and antennas. Questions and column input pertaining to Space Communications Monitoring should be sent to:

Larry Van Horn (TN-014),1111 N. Carrier Pkwy., B-107, Grand Prairie, Texas 75050.

Happy 100th issue RCMA. It is great to see the club make the 100th issue a reality and still going strong. I hope all the members are enjoying this extra special issue.

This issue represents the culmination of several years hard work by the founding fathers and the editorial staff of the RCMA. It is a pleasure to work with the finest staff of radio hobbyist in the hobby scene today.

To Jerry, Ginney, Carol and all of the editorial staff past and present, a hearty thank you. Here's hoping that we will all be around for the 200th issue of the best hobby newsletter today.

This month we have some exciting news to announce so without further ado....

Space Activity Report

20A	Cosmos 1539	14763	2/28/84	89.6	67.1	365	180 Mission: Long duration photo recon (USSR), Xmsn: 240 Mhz.
21A	Landsat-D	14780	3/1/84	98.6	98.2	711	692 Mission: Earth Resources mission: Photographic,etc., Xmsn: 2229.5, 2265.5, 2287.5 Mhz.
21B	UOSAT OSCAR 11	14781	3/1/84	98.6	98.2	711	693 Mission: Latest in series of amateur radio scientific satellites. Xmsn: 145.825, 435.025, and 2401.5 Mhz.
22A	Cosmos 1540	14783	3/2/84	1436.0	0.1	35969	35836 Mission: Possible UHF Geostationary COMSAT@ 100 east. Xmsn: 240-270 Mhz.
23A	French Intelsat	14786	3/5/84	1436.0	0.1	35900	35850 Mission: 8th international comsat in series/ Launched by Ariane. Xmsn: 1535 to 1542.5; 3704 to 3781; 3789 to 3861; 3869 to 3941; 3947.5; 3952.5; 3959 to 4031; 4037 to 4073; 4077 to 4113; 4117 to 4153; 4157 to 4198; 4192.5 to 4200.0; 10954 to 11031; 11119 to 11191; 11196.0; 11454.0; 11457 to 11698 Mhz.
24A	Cosmos 1541	14790	3/6/84	710.3	62.9	39037	604 Mission: Early Warning satellite; Xmsn: 2292; 2280-2304 Mhz.
25A	Cosmos 1542	14793	3/7/84	90.2	90.2	371	235 Mission: Mil Photo Recon, Xmsn: unknown
26A	Cosmos 1543	14797	3/10/84	90.6	62.8	416	224 Mission: Mil Photo Recon Xmsn: unknown
27A	Cosmos 1544	14819	3/15/84	97.6	82.5	674	644 Mission: Oceanographic satellite; Xmsn: unknown
28A	Ekran 13	14821	3/16/84	1436.0	0.1	35900	35850 Mission: Geo COMSAT (USSR);; Xmsn: 702-726; 714 Mhz.
29A	Molniya 1-60	14825	3/17/84	734.8	62.8	40193	651 Mission: High orbit COMSAT (USSR); Xmsn: 800-1000; 3400-4100 Mhz.
30A	Cosmos 1545	14849	3/21/84	90.2	72.9	395	208 Mission: Mil photo recon; Xmsn: unknown

Correspondance

I recently received an interesting letter from Hugh Stegman on his W5LFL Ops. Hugh basically agreed with the problems noted in the L.A. area I mentioned in a recent column. Hugh did say that some of the problem could have been caused by the L.A. Herald Examiner transposing both the uplink and downlink frequencies, and even the odd/even minute cycle in a news story. Hopefully all of the RCMA members weren't duped by this story and read Space Comm for the factual info.

Hugh stated that P.R. was great even though the bands were chaos. Hugh, they weren't in much better shape here either. Even some of our long time seasoned AMSAT folks and some extras managed to foul up the ups/ and downs. Our PR was great including all TV channel coverage, radio and extensive newspaper coverage. (Including one series of articles in the local GP paper about some crazy Navy sailor that lives in GP, Texas that writes for the RCMA.)

I will agree that the terms uplink and downlink were probably new terms for alot of folks. Thanks for the report Hugh.

Pat McDonald has sent along a copy of the ARRL/NASA QSL that us folks who did not work Owen received for our SWL reception reports. It is a very attractive an colorful QSL and a very nice addition to my growing space QSL collection.

Pat received Owen on Nov. 30, 83 at 18:38 pm, PST on a frequency of 145.550 Mhz. Pat used a Bearcat 300 and he said the signal was very clear except for hams transmitting on the downlinks... Same story, same verse. Thanks for the full page Xerox Pat and I hope that Carol can find room to put this historical QSL in the newsletter for all to see. I just wonder now how the ARRl will count this for country counting purposes. Is this going to be a new country??

FLIGHT OF COLUMBIA
STS-9/Spacelab-1

Launched on November 28, 1983
and after 247 hrs, 47 min
landed at Edwards A.F.B. on December 8, 1983

- First launch of Spacelab (provided by the European Space Agency)
- Longest Orbiter flight to date
- First European crewmember
- First 'Payload Specialists' (non-career astronauts)
- First six-person spaceflight

★ First Amateur Radio station in space:
W5LFL

Transceiver: modified Motorola MX-300 2-meter FM transceiver, hand-built by the Motorola Amateur Radio Club in Florida.
Antenna: directional ring radiator with cavity, designed to fit in the upper window of the spacecraft; built for NASA by volunteer employees of Lockheed.
Power: 4.5 watts
Mode: FM, CW (by keying carrier) All transmit and receive audio were tape recorded, which constitutes the station log.
Operating orbits: 40D, 56D, 62A, 71D, 91A, 96A, 97A&D, 110D, 111A&D, 112A, 113A, 129A, 130A, 134A, 134D, 135A&D, 144A&D, 145A&D, 146A, 149D and 150D.
Stations, 2-way contact: over 350
SWL: approximately 10,000 cards received
Countries: 23
Total operating time: about 4 hrs, 30 mins.

W5LFL
Space Shuttle Columbia

I am happy you were able to receive my Amateur Radio 2-meter signals from space during the STS-9/Spacelab-1 mission between 28 Nov. 1983 and 8 Dec. 1983.

73, Owen

Owen K. Garriott, W5LFL

World Record

As I write this column, the Russians have just docked Soyuz T-11 to the Salyut 7 space station. Onboard this international mission is two Russians and 1 Indian cosmonauts. With the launch of the STS-41C mission on April 6,84 there will be 11 men in orbit at once(including the 3 cosmonauts aboard) Salyut from T-10). Not much radio talk has been noted as most of the good descenting node passes hear in North Texas are occuring while the crew is in their sleep periods.

Space sure is becoming a crowded place these days. Wonder who will be the first RCMA member in space?

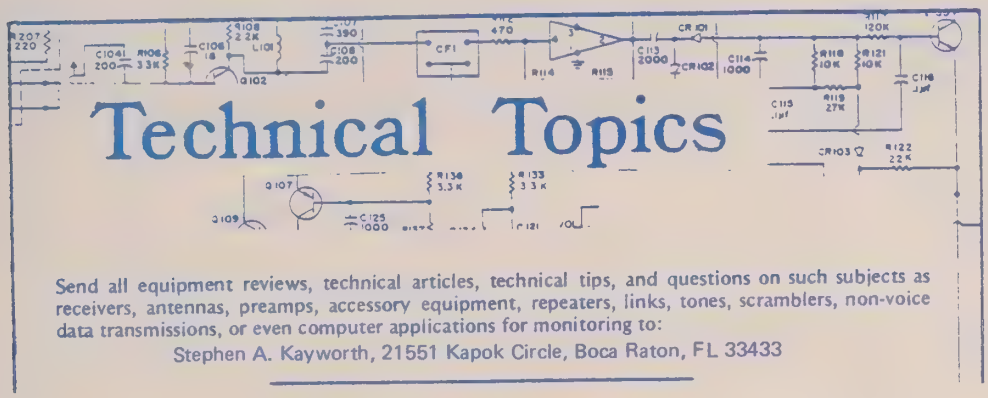
* * *

In a related item, a friend called recently a said a very interesting discovery had been made concerning Salyut ciphered comms (voice-142.4). A monitorist in Arkansas used a standard scanner decoder to decipher some Russian voice comms that were being encrypted aboard the Salyut 7. I hope to have more on this as it becomes available.

- -

OSCAR- 11 Launched

As noted in the Space Activity Report OSCAR 11 was launched on 3/1/84 with the Landsat D bird. Shortly after launch all the beacons aboard went dead. The cause is still not known for the malfunction, put some stations have noted extremely weak signals on 145.825 that could be coming from OSCAR 11. Test and telemetry data is still be analyized and AMSAT hopes it can correct the problem from the ground. More on this next month


Technical Topics
Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions, or even computer applications for monitoring to:
Stephen A. Kayworth, 21551 Kapok Circle, Boca Raton, FL 33433

REMOTE POSSIBILITIES

When it comes to communication systems, there are many levels of sophistication available. The simplest type of system is probably a desktop tranceiver connected to a small rooftop antenna and utilizing only one microphone. From this level, a radio system may be made more sophisticated by adding more features, depending on the communication needs and finances of the radio system user. One feature which many radio system users find very useful is the ability to operate the transmitter and receiver by remote control.

In the January 1984 issue of the "RCMA Newsletter," I spoke briefly about remote control in describing the various functions of the "control package" of a repeater, but what benefits are gained by using remote control? Why is remote control a desirable feature for a radio system. In a small business where only one person has to use the radio at one time, the additional cost of remote control would probably not be justified, but suppose a large company had a radio system and three or four key office personnel had to have access to it. In addition, suppose these people were spread throughout the building. It could prove awkward and time consuming for each of these people to have to leave their desk and go to the one dispatch point in the office to use the radio. With remote control, each of these people could have a small remote control unit or deskset, as they are often called, on his or her desk. One or all of the people could use the radio system at the same time without having to leave their office and crowd around one microphone.

Another situation where it would be beneficial to use remote control is when the radio user

finds it difficult to construct a high antenna system due either to cost or location. In this case, to get the best range possible, the user may elect to lease space on top of a high building or mountain top transmitter site and operate the radio by remote control. In this way, the user could operate from an existing office without having to move personnel to some out of the way transmitter location.

Still another reason for using remote control is in the case where a company wants to dispatch a fleet of mobile units from a location far removed from the operating area of the radio system. For example, one large computer company, located here in South Florida, has a group of service technicians which it dispatch from Atlanta, Georgia. The only way they can do this is by remote control.

It's not hard to think of other situations in which remote control would be useful, but these that I have mentioned are good examples of some of the more common reasons that remote control is used.

There are actually three different types of remote control systems that can be used, and these three, like the radio systems they are used in, vary in sophistication. The first is commonly called **Local remote.** This may sound like a contradiction in terms, but it does describe the situation pretty well. A local remote is nothing more than an extension of the microphone, speaker, and volume control of a radio. In tone squelch systems, some means of disabling the receiver's tone squelch circuit is also provided. A number of these remotes can be connected in parallel to a tranceiver using multi-conductor (usually six or seven) wire, but there is a limitation to the distance they can be located from the radio. Some local remotes can be as much as four or five hundred feet from the radio if only one remote unit is used, but most manufacturers recommend that they not be placed more than 100 feet or so from the radio when using more than one. It's easy to understand why this type of remote is called a local remote. This type of remote control system would work well in a small to medium size office

A second type of remote control system, and the next highest in terms of sophistication, is called DC **remote.** It is called this because these remotes use various DC (direct current) current levels and polarities (either positive or negative) to activate various remote control functions. Like local remotes, a DC remotes can also be connected in parallel but with two notable advantage. First, a DC remote can be operated using only two wires, and second, the distance they can be extended from the radio is measured in miles instead of feet.

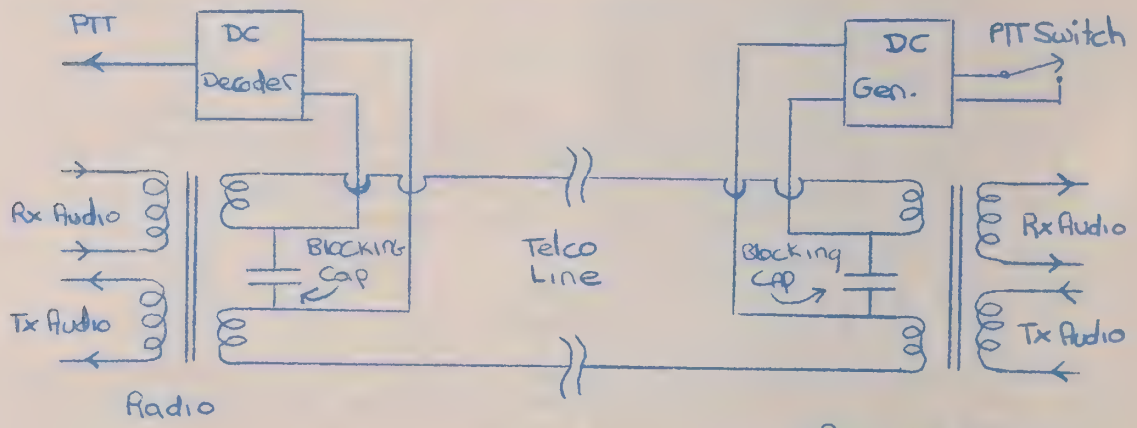


fig. 1

A DC remote is able to use only two wires because it sends both the DC control currents and the transmit audio simultaneously over a single pair of wires to the radio. When the radio is receiving, the received audio is sent over the same two wires back to the DC remote unit. Refer to figure 1 as I describe how a DC remote control system works. The key to being able to use just one pair of wires is in being able to superimpose audio over the DC current on the line at the remote end and then being able to separate the audio from the DC at the radio end. (Note: no DC current is involved when the radio is receiving, so the received audio is merely sent down the line to the remote unit.) To accomplish this, a transformer with a split winding is used at either end of the pair of wires. A DC blocking capacitor is then placed between the two windings. Since a capacitor will allow AC (alternating current) to pass and block DC, no DC will flow in either transformer windings at either the remote or the radio. At the DC remote end, whenever the microphone PTT (push-to-talk) switch is closed, the current generator starts producing DC current and applies it to the line at the point where the DC blocking capacitor is located. Since the current can't flow through the transformer winding due to the capacitor, it flows through the pair of wires to the radio

where it encounters another blocking capacitor. Again, the current can't flow through that transformer winding due to the blocking capacitor, so it flows through the DC current decoder circuitry where the current level and polarity is determined and the proper function is performed. As I mentioned earlier, the capacitor can pass AC, and since the transmit audio from the remote is an AC signal, it will flow through the transformer winding and on though the transformer in normal fashion - arriving finally at the transmitter modulation circuits. The received audio also travels through both of the transformers in the normal fashion - ignoring the DC current decoder and current generator.

The following chart will give you an idea of what types of remote control functions are possible using DC remote control:

+5.5 ma	Keys transmitter on frequency 1
+12.5 ma	Keys transmitter on frequency 2 and unmutes receiver on frequency 2
-2.5 ma	Disables receiver tone squelch circuity to monitor channel
-5.5 ma	Mutes receive frequency 2

The third type of remote control is called **Tone remote.** This type of remote control system gets its name from the fact that it uses tones of various frequencies to perform various remote control functions. If you have ever listened to a dispatcher and heard a momentary tone, best described as a little "bleep," just before he or she started transmitting, then you were probably listening to a tone remote system. As you might have guessed, this type of remote control system is the most sophisticated, but it is also the one that can perform the most functions.

In a tone remote system, there are two tone control formats - one for a non-transmit command and one for a transmit command. A non-transmit command involves sending a command which causes the radio to perform a certain function other than transmitting, and a transmit command invoves any command which also causes the radio to transmit. Refer to figure 2 as I describe the operation of a tone remote system. The following description is based on Motorola's terms for tone remote systems, but the basic principal is relevant to other manufacturers as well.

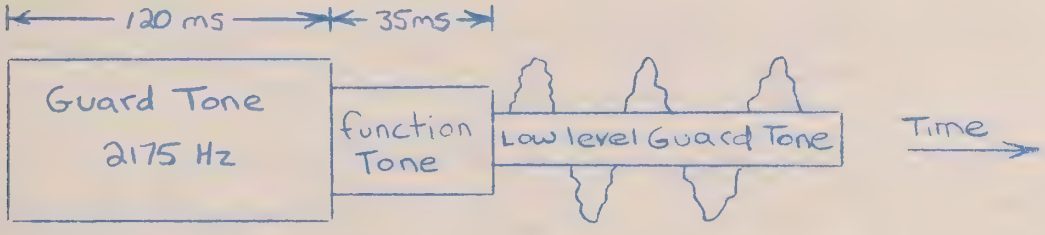


fig. 2

For the following example, assume that a dispatcher is using a tone remote control unit and is initiating a transmission. When the dispatcher presses the PTT button on the microphone, the following sequence occurs: First a **"guard tone"** is sent for 120 ms (milliseconds). Next, a **"function tone"** is sent for 35 ms, and then a **"low-level guard tone"** is sent for the duration of the transmission. The dispatchers voice is superimposed over the low-level guard tone and sent to the transmitter. Each time the dispatcher un-keys and re-keys the microphone, this sequence is repeated. Now for an explanation of what these tones do.

The first tone in the sequence is called the guard tone, which has a frequency of 2175 Hz. Its purpose is to prepare the circuitry at the radio to accept the next tone - the function tone. The function tone is the one that actually tells the radio what to do. The function performed by the radio is determined by the frequency of the function tone. For example, if the dispatcher has decided to transmit on frequency 1, the function tone will be 1950 Hz. When the tone decoder circuitry in the radio detects this tone it will activate the proper oscillator in the transmitter and it will begin to transmit on the desired frequency. The third tone, called the low-level guard tone, is also 2175 Hz and is used to keep the transmitter turned on as long as the dispatcher keeps the PTT button depressed. As soon as the PTT button is released the low-level guard tone is discontinued and the transmitter turns off. The next time the PTT button is activated the sequence starts again.

The preceding description was of a transmit command. A non-transmit command is similar to a transmit command except that no low-level guard tone is sent after the function tone. An example of a non-transmit command would be the disabling of the receiver's tone squelch circuitry.

The following chart will give you an idea about the various functions that can be performed using tone remote commands. It's obvious that much more can be done with tone remote as opposed to DC remote.

1950 Hz	Keys transmitter on F1 and sets receiver on F1
1850 Hz	Keys transmitter on F2 and sets receiver on F2
1750 Hz	Mutes second auxiliary receiver
1650 Hz	Unmutes second auxiliary receiver
1550 Hz	Repeater disable
1450 Hz	Repeater enable
1350 Hz	Keys transmitter on F3 and sets receiver on F3
1250 Hz	Keys transmitter on F4 and sets receiver on F4
1150 Hz	Auxiliary function. Can be used for any desired application
1050 Hz	Auxiliary function.

Just as the audio must be separated from the DC current in the DC remote system, it must also be separated from the tones in a tone remote system. This is done by the use of a tone filter built into the radio. This filter is designed to notch out the low-level guard tone frequency of 2175 Hz. That's why you don't hear it on the air when listening to a tone remote system.

In other ways, tone and DC remote control systems operate in similar fashion. They can both be operated on only two wires, and they both pass transmit and receive audio in the same way. Refer to figure 3 for a block diagram of a tone remote system.

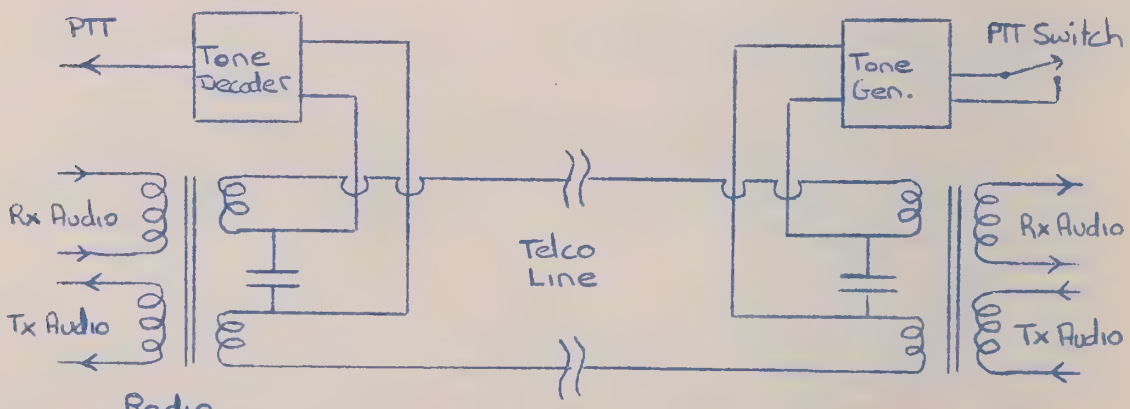


fig. 3

What are the main advantages and disadvantages of each of these systems. Local remote control has limited flexibility, but it is relatively inexpensive. DC remote control costs a little more, provides greater flexibility, and greater remote control distance, but the remote control must be accomplished through a continuous pair of wires. There can be nothing in the line that would block the flow of DC current. That means that if you wanted to run a radio by remote control in the next town, you would have to have the phone company provide you with a pair of wires that was DC continuous over the entire distance. You better be sitting down when you get the bill on that one. The big disadvantage of tone remote control is the cost, but if you can justify the outlay of the cash, it's all icing on the cake after that. Since tone remote control uses tones instead of DC currents, these tones can be sent by various means. I have described these systems with telephone lines in mind, but in truth the tones can be, and often are, sent by other means. Tones can be sent by microwave, light beam, satellite, or any other means of getting audio from one place to another - including phone lines. This, plus the multi-function capability, make tone remote control very versatile.

To show the many possibilities afforded by tone remote control, I have included a picture showing a rather sophisticated radio system making extensive use of tone remote control.

What should be obvious from all of this is that there is a remote control system for all types of radio users with all types of communication needs and budgets. More important, to those of us who are interested in monitoring these type of radio systems, we need to know how they work so that we can better understand and decipher what we hear. I hope the information I have provided will add to you monitoring ability.

Acknowlegments: The picture and the information contained in the two charts were taken from Motorola instruction manual # 68-81025E60D.

VHF Marine

Send information, articles, frequencies and their use, and questions that relate to private, commercial, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 424 W. 22nd St., Norfolk, VA 23517

HAPPY BIRTHDAY RCMA NEWSLETTER - 100th. EDITION

With this June issue of the RCMA Newsletter we celebrate the 100th. edition.If you look at the centerfold you will see a big difference between the first and the 100th. edition.

The change and growth of this newsletter is due to you members and your efforts to share your information and support.Without your continued support and confidence,this publication cannot grow.If we continue to grow as we have in the past,just think of what our 200th. Newsletter will be like.

Hello and welcome to your JUNE VHF MARINE COLUMN. Only two pieces of mail this month. I know that we can do better.

Three more Coast Guard Districts have responded to my inquiries for information;the Eigth,the Thirteenth and the Fifth.

Our first report comes from Jim (Ca-SF-030).It is an update to earlier information on the San Francisco Bay area.

First a correction to the October 1983 column.The Call sign KTN-902 is actually KTR-902 on Channel 9 (156.450) and the user is "PACIFIC MARINE ELECTRIC".

A correction for the February 1984 column is that it was not a Coast Guard Helicopter heard talking to Coast Guard Station Mare Island,but was California Highway Patrol's Helicopter "H30" on 157.050.This is the helicopter for the Golden Gate Division of the (CHP).

San Francisco Bay Area Loggings:

156.425 - KVY-702 - Point Reyes Bird Observatory,S.Farrallon Islands
(Also on 157.025)

VHF Marine continued

156.425 - KZH-976 - Golden Gate Yacht Club,San Francisco
156.500 - KPB-637 - I.T. Corporation,Berkley
156.500 - KTD-484 - ITT Telecommunications,Berkley
156.500 - KEA-988 - ID'S as "William Diamond"
156.500 - KPB-505 - Drew Chemical Corp.,Oakland
156.400 - - East Brother Light Station
156.450 - - East Brother Light Station
156.600 - KRS-851 - City of San Leandro
156.600 - - 2 Stations Id-Ing as "Production" & "Main Gate"
156.800 - - Coyote Point Harbor
156.800 - KZA-927 - San Leandro Yacht Club,San Leandro
156.800 - KJA-462 - New Merrimac Charter,Sausalito ID as "Merrimac Base"
156.800 - KBP-376 - Stockton Port District (70 miles away)
156.900 - KBP-376 - Stockton Port District (70 miles away)
156.800 - WHU-259 - Richmond Marina (This station used KCF-1195 as call sign prior to this one.Looks like the "KCF" prefixes are temporary call signs) (RE: Nov 83 newsletter)
156.900 - WHU-411 - Inland Pilot Office
162.400 - KEC-49 and KHB-49 - Area NOAA Stations.Both are located in Redwood City but transmitting antennas are in different locations.
Coast Guard Vessels- 41507,44347 & Motor Lifeboat 44371
Jims last information was published in the February 1984 column.At that time he was a new father.Now I find out that his wife presented Jim with a 9 pound son born on November 4,1983.

This month lets take a look at some of the pilot boats and their communications systems. Most ports of entry have pilot boats at the entrance to the port.It is the function of these boats to place a pilot aboard an incoming vessel.This pilot is up to date on the local waters and knows all of the bad spots that might be encounted while the vessel is inbound to port.It is the duty of the pilot to get the ship into port without any problems.Most of the pilot boats have local offices and the boats can often be heard talking to their offices about arranging pilot schedules,ship arrivals and departures.These pilots also take ships out of port the same as they bring them in.The pilots are transferred from the pilot boat to the ship by small launches.

The pilot boats and launches are not the easiest to monitor if you are not in the same general area.This is due to the power limitation of 25 watts on the vessels.

The following is a list of some of the pilot boats,launches and their offices.

Penabscot Bay Area Pilots,Inc. - Belfast,Me.
Base (Belfast - KVR-461) - 156.500,156.600 & 156.800
Base (Camden - KEB-375) - 156.500 & 156.800
Base (Monnegan - KVR-463) - 156.500,156.600 & 156.800
Vessel - Portable(WZN-6618)

United New York Sandy Hook Pilots Association - Staten Island,N.Y.
Base (New York(WHF-925)) - 156.675 & 156.800
(Staten Island (WXZ-500)) - 156.500 & 156.800
(Staten Island (WHF-925)) - 156.800 & 156.900
Vessels - Jersey(WY-5249),Ambrose(WYQ3997),Scotland(WF3606)
New York(WZH-4694),Chapel Hill(WYS-5558)
Sandy Hook(WE-7611),Romer(WD-2707),Plurality 10(WSY-9119)

Association of Maryland Pilots - Baltimore,Md.
Base (WOT) - 156.700,156.800 & 156.900
Vessels - Mariplot(WSZ-5527),Patapsco(WYC-3979),Pilot(WQV-2969),
Pilot Dispatch(WYR-4493),Pilot I(WY-7958),
P/B Maryland(WYF-4229)

Virginia Pilots Association - Norfolk,Va.
Base (KIC-371) - 156.550,156.800,156.900 & 156.975
Vessels - Newport News(WY-4415),Plurality 50(WT-9654) &
SS Virginia(WC-6314)

Biscayne Bay Pilots Association - Miami Beach,Fa.
Base (KGW-303) - 156.500,156.600,156.700 & 156.800

Vessels - Plurality #10(WXF-5965),Pilot Boat #3(WY-7380),
Pilot I(WXX-5852),Pilot Boat #1(WT-6090),Pilot II(WSZ-5527)
****The Pilot Association also uses 461.375,461.475 & 461.925

Palm Beach Bar Pilots - Riveria Beach,Fa.
Base (KEA-985) - 156.450 & 156.800
Vessels - Portable(WZO-2899),Pilot Boat No.1(WXS-8364) &
Pilot Boat No.2(WXS-8365)

Port St.Joe Pilots Association - Port Saint Joe,Fa.
Base (KQU-480) - 156.500,156.600 & 156.800

Fort Pierce Bar Pilots Association - Fort Pierce,Fa.
Base (KVY-728,729) - 156.500 & 156.800
Vessels - Pilot(WS-4668)

St.Johns Bar Pilot Association - Mayport,Fa.
Base (KDO-763) - 156.550,156.700 & 156.800
Vessels - Jax Pilot(WT-8422),Jacksonville(WY-5272) &
Plurality 10(WXJ-7251)

Tampa Bay Pilots Association - Tampa/St.Petersburg,Fa.
Base (KAW-767) - 156.500,156.600 & 156.800
Vessels - Egmont(WZY-4886),Manatee(WZP-7128),Tampa(WZT-6457)

Columbia River Bar Pilots - Astoria,Or.
Base (KOK-360) - 156.650,156.800 & 156.900
Vessels - Portable(WXM-3256),Peacock(WS-7217),Columbia(WZU-7337),
Arrow No.2(WS-8056)Arrow No.1(WF-2992)
****The Pilots also use 151.685

San Francisco Bar Pilots Ben. & Protect. Assn. - San Francisco,Ca.
Vessels - California(WZC-6817),California(WYK-4689),
San Francisco(WYZ-8288),
Drake(WX-9564) & Charline(WD-2632)

Associated Branch Pilots - New Orleans,La.
Base (Lake Charles - KBP-368) - 156.275,156.325,156.600 & 156.800
Base (Pilottown - KIY-809) - 156.450 & 156.800
Base (Cameron - KBP-371) - 156.275,156.325,156.600 & 156.800
Vessels - Delta(WN-2239),Assitant(WM-6308),Judge Perez(WX-8426)
Louisiana State(WY-2096),Plurality 10(WXM-4354)

Texas Federal Pilots,Inc. - Algiers,La.
Vessels - Sam Shepperd(WYB-6512) & Federal Pilot(WZC-6395)

Associated Federal Pilots of Louisiana,Inc. - Venice,La.
Base (WBX) - 156.450,156.800 & 156.975

Associated Federal Coast Pilots - Arabia,La.
Base (WBY) - 156.450,156.800 & 156.975
Vessels - Plurality 10(WZN-4581),Plurality 10(WXD-7437)

Gulfport Pilot Association - Gulfport,Ms.
Vessel - Gulfport Pilot(WQZ-7292)

Lake Pilots Association,Inc. - Port Huron,Mi.
Base (KFL-350) - 156.500,156.600 & 156.800
Vessel - Pilot II(WYW-6358)

Port of San Diego Pilots,Inc. - San Diego,Ca.
Vessels - Pilot(WB-8426) & Dart(WK-5421)

Houston Pilots Association - Houston,Tx.
Base (Galveston - KKQ-442)156.800 & 156.975
Base (Deer Park - KEB-543)156.725,156.800 & 156.975
Vessel - Plurality 80(WZX-6224)

Pudget Sound Pilots Association - Seattle,Wa.
Base (Port Angeles - KJC-807)156.450,156.650 & 156.800
Vessels - Marine Utility(WY-2066),Pudget Sound(WYX-3902) &
Juan DeFuca(WYC-7288)

VHF Marine continued

Washington Pilots Association - Seattle,Wa.
Base (Port Angeles - WHD-899)156.350,156.450 & 156.800

Seaway Pilots,Inc. - Cape Vincent,N.Y.
Base (KDD-593) - 156.550,156.700 & 156.800
Vessel - Seaway Pilot(WR-3857) & Seaway Pilot(WX-9646)

Pensacola Bar & Harbor Pilots,Inc. - Pensacola,Fl.
Base (WDJ-327/328) - 156.450,156.600 & 156.800
Vessel - Pilot(WF-4218)

Brunswick Pilot Boat,Inc. - Saint Simmons Island,Ga.
Base (KVL-897) - 156.450,156.600 & 156.800
Vessel - Pilot Boat # 2(WYL-2804)

Pilot Association for the Delaware Bay - Lewes,De.
Base (Lewes - KUF-842) 156.475,156.700,156.725,156.800 & 156.975
Base (Lewes - KGB-994) 156.700,156.725,156.800 & 156.975
Base (Rose Valley - KEW-832) - 156.475,156.700,156.725,156.800 & 156.975
Base (Philadelphia - KEW-845) - 156.700,156.800 & 156.975
Mobiles (KK-6064) - 156.300,156.650,156.700,156.800 & 156.975
Pilot Business (Lewes - KAA-7768) - 462.675 & 467.675
Vessel - Plurality 10(WB-8940)

Brazos Pilots Association - Freeport,Tx.
Base (KIZ-635) 156.450,156.700 & 156.800
Vessel - Plurality 10(WZS-2960)

Canaveral Pilots Association - Cape Canaveral,Fa.
Vessel - Plurality 10(WZE-6513)

Jacobson Pilot Service,Inc. - Long Beach,Ca.
Base (KMA-372) 156.350,156.600,156.725 & 156.800
Vessel - Plurality 10(WZA-8571)

Morehead City Pilots Association - Morehead City,NC
Base (KZA-976) 156.450,156.700 & 156.800
Vessel - Plurality 10(WM-5311)

Schaffers Pilot Transfer,Inc. - Chesapeake City,Md.
Vessel - Plurality 10(WXM-7982)

The above list is not a complete list but represents many hours of work.Anyone having additions or deletions please contact me.

If by some chance you have submitted information but have not seen it in print please drop me a line so I can try to correct the error.

Well that about does it for this month. Please lets try to make our second hundred newsletters much bigger and better than the first hundred. Only you can make it better.

See you next month. 73's

RCMA

• NEW MEMBERS LIST •

4 16 1984

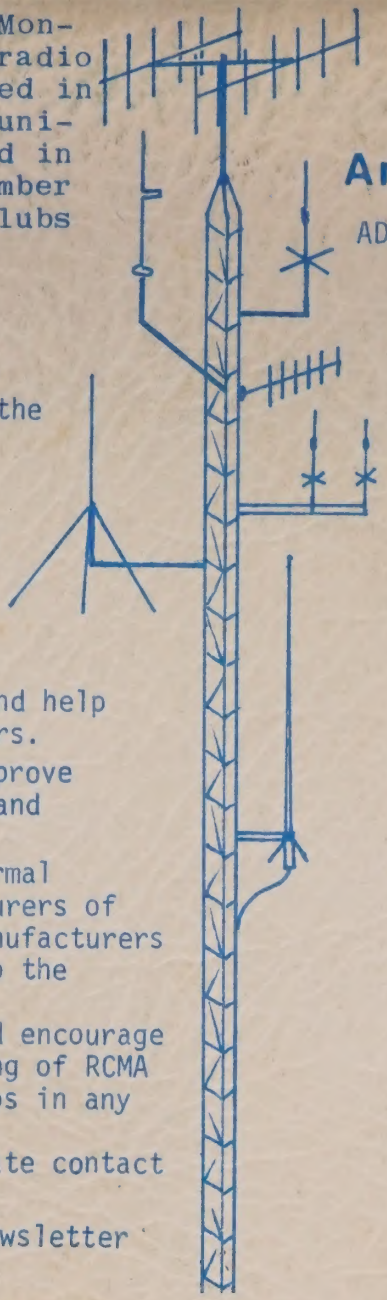
CALA573 FINDLATER, JOHN;500 BELOIT AVENUE;LOS ANGELES, CA 90049
CALA574 HAYES, ARCHIE * ADDRESS WITHHELD BY REQUEST
CALA575 FLYNN, ROBERT M;4219 HAMSTEAD ROAD;
LA CANADA FLINTRIDGE, CA 91011
CALA576 MEGDAL, BARRY;13559 HAYES ST;VAN NUYS, CA 91401
CASB062 DUNN, HARRY M;P.O. BOX 511;BIG BEAR LAKE, CA 92315
CASC046 FOWLER, GREGORY;P.O. BOX 987;MOUNTAIN VIEW, CA 94042
CASF034 ZAMLICH, MARTIN;204 LAWTON 1;SAN FRANCISCO, CA 94122
CASF035 CASCO, ARMANDO M;278 FAIR OAKS ST;SAN FRANCISCO, CA 94110
CAVE029 SMITH, TIM;P.O. BOX 4929;VENTURA, CA 93004
HI 011 STREIBER, RUSSELL;2050 NUUANU AVE APT 3-I;HONOLULU, HI 96817
IA 047 NEFF, FRED A * ADDRESS WITHHELD BY REQUEST
IL 278 BLAKE, RONALD * ADDRESS WITHHELD BY REQUEST
IL 279 WEBB, WILLIAM;18340 WESTERN AVE;HOMEWOOD, IL 60430
IL 280 FICHT, JAMES M;2056 W CUYLER;CHICAGO, IL 60618
IL 281 BENKO, TIM;P.O. BOX 125;LANSING, IL 60438
KY 043 CAUDILL, JOHN D;419 E.K. ROAD;GREENUP, KY 41144
MD 087 PHILLIPS, S.W.;6215 CATALPHA ROAD;BALTIMORE, MD 21214
MD 088 SHEARIN, VERNA;445 BERNICE TERRACE;ABERDEEN, MD 21001
MI 139 GRAY, J SPEED III WDX8EH;1260 TROON CT SE;
GRAND RAPIDS, MI 49506
NY 284 CLARK, JAMES;210-04 42 AVENUE;BAYSIDE, NY 11361
OH 159 MEZEY, ROBERT;1516 CARDIFF RD;COLUMBUS, OH 43221
OR 064 BOOZE, MICHAEL;2123 NOMAD CT S.E.;SALEM, OR 97306
PA 203 CADUGAN, WILLIAM;1133 BRYN MAWR ST;SCRANTON, PA 18504
PA 204 SIMPSON, GEORGE P;16 MALLARD COURT;MECHANISBURG, PA 17055
TX 147 HOLIFIELD, R.Q.;907 CONRAD ST;AUSTIN, TX 78758
TX 148 BURNETT, CAROL G;7331 FIELDGATE;DALLAS, TX 75230
UT 015 PARKEN, JOHN D;127 SOUTH 800 EAST 26;
SALT LAKE CITY, UT 84102
WA 058 COMBS, MERLE R;1416 20TH ST N.E.;AUBURN, WA 98002
WA 059 MCCARY STEVE W;HC01 BOX 55;MESA, WA 99343

@@@

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



RCMA
P.O. Box 4563
Anaheim, CA 92803

ADDRESS CORRECTION REQUESTED

BULK RATE
U. S. POSTAGE
PAID
ANAHEIM, CA 92803
PERMIT NO. 397

WA 026 02/85
BAHNER, SPENCER L
PO BOX 1432
OLYMPIA, WA 98507

RUSH -- ITEMS OF NEWS VALUE
TIME VALUE